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*Attitudes and Knowledge Concerning*  
**FALLOUT SHELTERS**  
*in Austin, Texas*

By HARRY ESTILL MOORE  
*with*  
MARVIN V. LAYMAN and DONALD L. MISCHER

OFFICE OF CIVIL DEFENSE / DEPARTMENT OF DEFENSE

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Office of Civil Defense  
Contract  
CDM-SR-62-2

ATTITUDES AND KNOWLEDGE

Concerning

FALLOUT SHELTERS

in

AUSTIN, TEXAS

Prepared For

OFFICE OF CIVIL DEFENSE

of the

DEPARTMENT OF DEFENSE

by

HARRY ESTILL MOORE

with the very active collaboration of  
MARVIN V. LAYMAN and DONALD L. MISCHER

January, 1962

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To the University of Texas, Hogg Foundation for Mental Health, Department of Sociology and Disaster Study for supplying facilities, personnel and advice;

To Marvin V. Layman and Donald L. Mischer for their unstinted efforts as Associate Directors of this study;

To the three-dozen or so students who gathered the data by tracking down the respondents;

To Linda Henslee and Eleanor Boyd for their skill in handling the bothersome secretarial work and their expertise in turning a hacked-up manuscript into a finished report.

En el mundo de los Ciegos,  
el tuerto es Rey\*

-----Old Spanish Proverb

\*In the world of the blind,  
a one-eyed man is king

Comparison of the knowledge of and attitudes toward home fallout shelters and related topics was undertaken in the city of Austin, Texas, during the Autumn of 1961 in accordance with Contract CDM-SR-62-2 between the Office of Civil and Defense Mobilization and the University of Texas, with Harry E. Moore, Professor of Sociology as Principal Investigator. Though not, properly speaking, a part of its program, the survey was handled through the continuing Disaster Study at this University and utilized the staff and mechanical facilities of the Study. The presence of a secretary and two Research Associates familiar with research techniques aided greatly in planning and executing the Shelter Study. At the same time, other research underway simultaneously demanded a good portion of the time of the staff and, so, countered the advantage of having a trained core of workers. Marvin V. Layman and Donald L. Mischer were named Associate Directors of the study and did much of the day-to-day work of supervising the gathering and analysis of data.

Logically, the study falls into three parts: the extent of knowledge possessed by citizens of this city regarding fallout shelters and similar aspects of potential danger from open warfare; their attitudes toward such shelters, the Civil Defense organization, and the probability of nuclear attack in case of war; and the comparison of the two panels of informants in terms of these two factors. The latter is seen as being of primary importance to

this study, since it indicates the extent to which the recognized leaders of the community are capable of functioning effectively as regards this matter of literal life or death.

To assure maximum comparability with other similar studies being sponsored by Civil Defense in other portions of the nation, the schedule used in the present study was almost entirely replicated from that developed for use with community leaders. The sequences of questions designed specifically for leaders were also used with non leaders as a means of determining how much latent leadership ability might be discovered among persons not occupying leadership status in recognized institutions.

Panels of 200 persons in leadership roles in recognized institutions and of 300 persons chosen by random sampling methods, described later in this report, as representative of the total population of the city were interviewed, their replies were coded and transferred to IBM cards and then subjected to standard statistical techniques by use of a counter-sorter and a computer. Data from the many open-ended questions were analyzed by identification of recurring themes, which were then tabulated and made part of the data treated statistically. In addition, much illustrative material has been combed from the free responses of the respondents.

It should be said that the findings of this study can be applied with safety only to the city of Austin. This is something more than the usual formal declaration since Austin is a University

and a Political center; and, so, has a population not representative of the state and certainly not of the nation. This essential difference appears strikingly in the make-up of the leadership sample.

One other caveat must be entered. This study was done at a time when there was a very great deal of discussion of fallout in the media of mass communication. Russia had resumed above-ground testing of nuclear weapons and had startled the world by setting off its "50-megaton bomb." But even before this dramatic event, Civil Defense and the Office of the President of the nation generally had greatly stepped up efforts to break the apathy which had marked matters of protection of the general population from the effects of nuclear warfare since the early days of our discovery that the Russians also had "The Bomb."

Television, radio and the printed media all joined in this effort to alert the general population to its potential danger. In Austin, as elsewhere, an enterprising journalist had himself incarcerated in a fallout shelter--equipped for sound--for a period of two weeks and made regular reports of his state of well-being. A local newspaper ran a daily series of articles designed to convince readers that they could survive an atomic attack.

Just how much effect this campaign had on the knowledge of and attitudes toward home fallout shelters is problematic; but what effect it did have would be in the direction of heightening awareness

and providing data indicating more concern than would have been true a few weeks earlier and, probably, would be found a few weeks after the campaign had been concluded.

#### RESEARCH PROCEDURES

The sampling devices used to select the non-leader panel is a modification of the area sampling proved to be effective through long use by public opinion polls and market researchers. Polling places used in the last general election for each voting precinct were spotted on a map of the city. These then were made primary reference points for the selection of 37 blocks--one in each precinct--in which interviewing was done. The first block chosen was that one located one full block North of the polling place in the precinct with the highest number on the official list of voting precincts. The second block chosen was found one full block East of the polling place with the second highest number. The third and fourth blocks were those one full block South and West of the polling places in the third and fourth highest numbered precincts. The fifth block was that one two full blocks North of the polling place in the fifth highest numbered precinct. This scheme was continued until a block had been selected at an arbitrary distance in an arbitrary direction from the polling place in each precinct. When the distance in a straight line became too great, so that the indicated block was likely to be outside the precinct, the scheme was varied by using that block located by going one full

block North and then one full block East from the polling place. Thus the interviewer was denied any discretion in choosing the block in which to do his interviewing. Further he was instructed to interview at each and every house in the assigned block, so that he could not choose houses of apparently higher, or lower, socio-economic status.

When the block chosen by the scheme outlined above proved to be unsuitable for our purposes, as when there were no homes, a second block was chosen by the selection scheme used for the initial choice. When there were less than eight houses in the designated block, a second choice was made by moving to the opposite side of the compass, for example, if the block one block North and two blocks East had only six homes, the interviewer was reassigned the block one block South and two blocks West from the polling place as a substitute. But this procedure was necessary in only four instances. When apartment houses were found in the assigned block, the interviewer was instructed to obtain only a specific number of interviews per apartment house, according to the nature of the block. For instance, if there were more than ten family units in the block assigned, the interviewer was instructed to obtain only two interviews in any apartment house. Where there were fewer than ten family units in any block, the interviewer was allowed to obtain as many as four interviews in an apartment house. As a matter of fact, however, this alternative

was never used.

Blocks were assigned only after their suitability had been established by a visit by one of the Associate Directors for the study; and each interviewer was given specific instructions as to starting point and directions in which he should proceed until he had covered his area. Any deviations from the prescribed procedures required prior approval.

#### THE LEADERS

Leaders were selected by first making a list of all organizations listed by city officials, the local Chamber of Commerce and the local telephone directory. This list included offices of local, state, regional and national organizations. From this list, arranged alphabetically, each third name was drawn. A second list was drawn from listings of officers of political, civic, patriotic, religious and educational institutions represented in the city. From this list each tenth name was drawn. Combining the lists gave a total of slightly more than the 200 desired; and the excess number was eliminated by discarding obvious non-leaders who had slipped in as part of the organizational list or persons in official positions who were not in positions that would enable them to influence others other than by means of their personal characteristics. For example, the regional laboratory of the American Institute of Biological Sciences was eliminated as not likely to be very active in the

opinion and attitude formation processes; and the engineer in charge of the peripheral facility of the Federal Aviation Agency, located in an area some twenty miles from the center of the city, was judged not to be a true leader of the sort with which this study was concerned.

The character of Austin is reflected in the types of persons turned up in the leadership sample. Of the 200 persons, only 76 reported themselves affiliated with businesses. Religious workers numbered 28. The remainder of the leaders were in governmental service of some sort, ranging from administrators of public schools to top-bracket state and university officials. With approximately one half the leaders employed by governmental agencies, it is obvious that we should expect something of an "official" viewpoint in their responses.

Further, several of the leaders associated with private businesses were administrators of state headquarters offices of trade associations. Normally these persons devote a considerable portion of their efforts to working with governmental agencies on behalf of their associations. They also are charged with the tasks of keeping association members informed as to governmental actions, including those proposed, but not yet taken; and of acting as public relations officer for their employers. Hence, these persons are in a strategic position to influence large numbers of persons with regard to Civil Defense, or other programs. In so far as the present

study may have the effect of forcing respondents to think about the Civil Defense program and their part in it--and there is evidence that this effect is not negligible--this represents an unexpected dividend.

#### THE INTERVIEWERS

Shortly after the beginning of the Fall semester at the University of Texas, 33 upper classmen and graduate students were recruited as interviewers. These persons were chosen in terms of their training as represented by courses taken and their experience. Persons with prior interviewing experience were given preference.

Each person chosen as an interviewer was given a short, intensive training course beginning with a thorough familiarization with the schedule to be used and proceeding through instruction in techniques of interviewing to conducting practice interviews under supervision. They were instructed to report any difficulties with the schedule or with informants to the supervisors as quickly as possible after the trouble was encountered.

Response to the interviews was pleasant and cooperative in most cases. Some refusals were encountered, less than 50 in total. Two or three airmen at Bergstrom Air Force Base refused to be interviewed, or gave "No Comment" replies to most questions. The local Civil Defense Director failed to recognize reports to him of persons going about asking all sorts of questions as the research project on which he had been thoroughly briefed a few days before.

A few of the leader panel complained that interviewers did not keep appointments promptly and caused a waste of time. But these difficulties were easily smoothed out in each instance. The net impression is that the gathering of data went more smoothly, though more slowly, than in other similar projects.

Interviewers reported a high interest in the subject of fallout shelters among leaders and non-leaders alike, and were sometimes asked for advice they could not give because of their instructions and because of their limited knowledge of the subject.

#### THE SAMPLE DRAWN

The types of persons turned up by the sampling devices used are displayed in the series of tables which follow. The tables reveal no surprising anomalies and may be allowed to speak for themselves. Occupational and educational characteristics reveal typical class differences and support the assumption that the leaders are of upper middle and upper class membership predominately. The drastic differences in the sex composition of the two panels is accounted for by the fact that random sample members were interviewed in their homes during daytime hours while the leaders were interviewed in their offices during the same hours. Interviewers were instructed not to press for replies on the age query, but to enter their best guess when antagonism to the question was encountered. This introduces an element of uncertainty as to the validity of the figures on age presented; but it is believed this is not a serious factor in this study.

TABLE I  
Item 116

OCCUPATIONAL DISTRIBUTION OF SAMPLES			
Occupation	RS	LDR	Both
Prof., Tech.	24	104	128
Mgrs., Proprietors	20	91	111
Clerical Workers	30	1	31
Sales Workers	12	1	13
Craftsmen, foremen	8	0	8
Operatives & kindred wkrs	7	0	7
Service wkrs.	20	1	21
Laborers	3	0	3
Retired, students, widows	40	1	41
Unemployed	7	0	7
Housewives	129	1	130
Unknown, no ans.	0	0	0

TABLE II  
Item 118

MARITAL STATUSES OF SAMPLES			
Marital Status	RS	LDR	Both
Married	228	170	398
Single	40	19	59
Widowed, divorced, separated	31	10	41
No answer	1	1	2

Statistical tests of significance were made only when there appeared to be reasonable doubt as to whether such test would meet accepted criteria and, further, would be meaningful to the discussion. In such cases,  $X^2$  values were calculated on differences between the two panels of informants, with categories collapsed so that in each case one degree of freedom was present. Values obtained are given in each case.

TABLE III  
Item 119

OCCUPATIONAL DISTRIBUTION OF RESPONDENT'S SPOUSE			
Occupation	RS	LDR	Both
Prof., Technical	36	28	64
Mgrs., Proprietors	22	10	32
Clerical workers	27	14	41
Sales workers	21	2	23
Craftsmen, foremen	31	4	35
Operatives & kindred workers	6	0	6
Service workers	24	2	26
Laborers	11	0	11
Retired, students, widows	21	2	23
Unemployed	0	1	1
Housewives	33	107	140
Unknown, no ans.	68	30	98

TABLE IV  
Item 121

NUMBER OF PERSONS, 18 YEARS OF AGE OR OLDER, IN HOUSEHOLD			
No. of Persons	RS	LDR	Both
One	35	16	51
Two	205	146	351
Three	36	29	65
Four	14	6	20
Five	3	0	3
Six	2	0	2
Seven	1	0	1
Eight	1	0	1
Nine or More	1	3	4
None	2	0	2

TABLE V  
Item 122

NUMBER OF CHILDREN, UNDER 18 YEARS OF AGE IN HOUSEHOLD			
No. of Children	RS	LDR	Both
One	56	36	92
Two	51	38	89
Three	34	16	50
Four	16	11	27
Five	9	4	13
Six	2	0	2
Seven	1	0	1
Eight	1	0	1
Nine or more	2	0	2
None	128	95	223

TABLE VI  
Item 123

EDUCATIONAL ATTAINMENT			
Grade Attained	RS	LDR	Both
Less than 8th Grade	28	4	32
Eighth Grade	24	1	25
High School, incomplete	43	8	51
High School, complete	68	9	77
College, incomplete	77	23	100
College, complete	39	34	73
Graduate work	18	121	139
Don't Recall	2	0	2
No Answer	1	0	1

TABLE VII  
Item 124

SEX			
Sex	RS	LDR	Both
Male	94	165	259
Female	206	35	241

TABLE VIII  
Item 125

AGE			
Age	RS	LDR	Both
Under 26 yrs.	81	3	84
26-30 yrs.	36	6	42
31-35 yrs.	34	16	50
36-45 yrs.	48	55	103
46-60 yrs.	61	89	150
Over 60 yrs.	36	25	61
No Answer	1	1	2
Unknown	3	5	8

TABLE IX  
Item 45

TYPE OF DWELLING OCCUPIED			
Dwelling	RS	LDR	Both
One-family, pvt. house	237	180	417
Two-family, pvt. house	29	7	36
Apt. house, three or more family units	27	10	37
Rents Room	2	0	2
Student dorm, etc.	5	3	8

TABLE X  
Item 46

HOME OWNERSHIP			
Ownership	RS	LDR	Both
No Answer	16	3	19
Own	172	157	329
Rent	112	40	152
		$\chi^2 = 19.69$	$P < .001$

TABLE XI  
COMPOSITION OF LEADERSHIP PANEL

Business	76
City and County Govt.	15
Public Schools	19
Religious	28
State & Fed. Govt.	25
University of Texas	<u>37</u>
TOTAL	200

The representative character of the sample drawn was tested by comparing it with available and pertinent figures from the 1960 census report on the city of Austin. Results are shown in the accompanying table:

TABLE 1  
COMPARISON OF AUSTIN AND SAMPLE POPULATIONS ON SELECTED CHARACTERISTICS

Characteristic	Austin	Percentages for Sample
Aged 18 yrs. or above	63.4	62.6
Married (18 yrs. or above)	69.26	76.0*
Number per household	3.26	3.35
Number in multiple dwellings	9.4	11.0
Owner Occupied Homes	59.7	60.5
Non-white Population	12.8	8.3**

\* This estimate is based on extrapolation of figures from the Census to correspond to those reported in the sample and, therefore, is not exact.

\*\* Non-white (Negro) population is under-represented in this sample because of the failure of an interviewer assigned an area of Negro dwellings to secure the assigned interviews, or to report his failure until too late to assign another interviewer. This error tends to decrease the differences between the leader and non-leader categories, it seems fairly certain.

In spite of two significant misses, the sample drawn appears to be fairly representative of the Austin population.

#### KNOWLEDGE OF CIVIL DEFENSE PROGRAM

Obviously, the most fundamental datum for consideration of knowledge of and attitudes toward a Civil Defense effort is knowledge of what has been and is being done by Civil Defense. This information for Austin is developed in a series of questions, the first of which is "As far as you know, is there a Civil Defense program in Austin?"

TABLE 2  
Item 10

AWARENESS OF LOCAL CIVIL DEFENSE PROGRAM			
Responses	RS	LDR	Both
No answer	1	1	2
Yes	226	190	416
No	22	3	25
Don't Know	51	6	57

$\chi^2 = 10.86$   $P < .001$

The overall reply is reassuring. More than 80 percent of the persons queried were aware of the local program. It should be noted that a pattern which persists throughout the study also is seen here-- 95 percent of the leaders were aware, but only 75 percent of the

random sample were able to give a "yes" answer to the question. Further, 7 percent of the random sample thought there was no such program, and 17 percent professed ignorance as to whether there was or was not. Corresponding percentages among the leaders were negligible. Thus the leaders are seen as being much better informed.

The tendency noted in the responses to the query as to whether the local Civil Defense program existed or not, continues in replies to follow-up questions.

TABLE 3  
Item 11

SOURCES OF RECENT INFORMATION ON CIVIL DEFENSE			
Source	RS	LDR	Both
No ans., heard nothing	90	11	101
Prntd. material distbtd. by CD	22	15	37
Heard talk on CD at meeting	9	8	17
Read art. in periodical or nsppr.	18	17	35
Heard something on radio or TV	31	7	38
Gen. discussion, neighbors, friends et al	5	9	14
Contacted by Salesman	0	1	1
Both 3 & 4	6	16	22
Both 7 & 1	5	15	20
Heard, but don't remember what	114	101	215

A much greater proportion of the random sample could not reply when asked whether they had heard anything about local Civil Defense efforts in the recent past; but were less likely to reply that they had heard or read something they could not remember. Perhaps this statistic represents less readiness on the part of random sample members to confess that they do not remember what they have heard. Leaders were notably more likely to cite public discussions at

meetings or with friends, and something they had read; the general sample more likely to reply that they had heard of Civil Defense via radio or television. But most pertinent is the fact that leaders were much more likely to have utilized multiple sources of information, particularly the mass media supplemented by materials directly from Civil Defense and in periodicals.

TABLE 4  
Item 11

CONTENT OF RECENT INFORMATION ON CIVIL DEFENSE			
Content	RS	LDR	Both
No. answer, heard nothing	90	12	102
Home Shelters (plans & adv. for bldg., sales)	22	5	27
Equipping of home fallout shelters 1 and 2	3	0	3
Building public shelters	15	16	31
Sirens, warning	8	6	14
Civil Defense plans 3 and 5	19	22	41
3 and 6	53	68	121
Heard, but don't remember what	4	23	27
People's reactions to CD activity	11	15	26
	74	32	106
	1	1	2

The wide range of information and misinformation imbibed concerning Civil Defense activities is illustrated by these comments culled from those offered by respondents to the question as to what they had read or heard on the subject recently:\*

"I don't have time to listen to TV or radio--am aware of articles in newspapers."

"We have an outstanding CD director; my wife was designated block chairman. Hurricane Carla demonstrated usefulness of Civil Defense."

"They are giving lectures, distributing information on shelters and survival kits."

"They give out packets. One must agree to distribute packets to one's block to get one. One of my friends refused to accept that arrangement."

"I saw materials in the library; I know of C D kits; they are planning a survey of public buildings."

"There has been a concentrated effort on fallout danger."

"They are not trying to scare people but are getting them to realize we could go to war. Are coming in the back door."

"They had mechanical difficulties with the warning system."

When these informants were asked what it was they had heard about local Civil Defense, the discrepancy between the two samples becomes even more apparent. Thirty percent of the random sample said they had heard nothing, or did not answer the question; only 6 percent of the leaders fell into this category. On the key question of knowledge of local plans, 34 percent of the leaders had some awareness, but only 18 percent of the others did so. Again, leaders had knowledge of several aspects of

\*Though most of the quotations presented here, and subsequently, are verbatim, minor alterations in verbiage have been made when necessary to disguise the identity of the informant when this could be done without changing the fundamental idea expressed.

Civil Defense efforts more often than did representatives of the population generally. But, pertinently, the random sample respondents were more likely to reply that they had heard of home fallout shelters and their use. There would seem to be a tendency for the general population to think of Civil Defense, at the time of this survey, largely in terms of such shelters.

As is to be expected, leaders were significantly more likely to have attended lectures, or courses, on Civil Defense matters than were members of the random sample--though less than one in five of either category had done so. Further, the leaders were more likely to have participated in such learning through the schools or other governmental units and civic clubs. But the percentage of either group who had such experience is so small as to make the statistics a matter of very minor importance.

TABLE 5  
Item 15

FORMAL INSTRUCTION IN LOCAL CIVIL DEFENSE PROGRAM RECENTLY			
Responses	RS	LDR	Both
Yes	28	34	62
No Answer	3	1	4
No	266	162	428
Don't Know, Not Sure	1	3	4
Someone in family atnd.	2	0	2

$X^2 = 6.50$      $P < .02$

One person listed his attendance at "A movie called 'Operation Abolition'."

The conclusion is apparent that the people of Austin, in the Autumn of 1961, were not aware of the Civil Defense program and what

it was attempting to do in their home town.

#### PARTICIPATION IN CIVIL DEFENSE

Since these people so seldom knew of the Civil Defense program, it is not surprising that few of them were working with that organization. Their replies formalize this obvious conclusion. Of the 42 persons who did report helping with Civil Defense work in some way, 33 were in the leader category; only nine (3%) of the random sample were so engaged. In terms of percentages, the leaders lead in this respect by a ratio of 16 to 3.

TABLE 6  
Item 12

WORKING WITH LOCAL CIVIL DEFENSE PROGRAM			
Responses	RS	LDR	Both
No answer	24	3	27
Yes	9	33	42
No	267	164	431

$$X^2 = 17.49 \quad P < .001$$

However, 13 of the 33 leaders reported that their C D work was required as part of their regular job and 8 others said that they were members of a Civil Defense committee for their organization. The participation of four others had apparently been limited to the passive act of allowing use of facilities under their control for Civil Defense activities; and five others claimed credit for having passed out literature. Finally, the one block chairman and two persons who were so vague as to their activities that they could not be categorized with any certainty remain as the members

of the leader category actively engaged in C D work presumably of their own choosing.

Though most of those who had actively participated in the Civil Defense program had done so as block chairmen, by attending lectures or by passing out literature, more technical assistance was also indicated;

"I'm in an advisory position on buying equipment and building shelters."

"I am on a technical engineering committee of C D."

"I work and teach rural people of dangers of storms and various types of disaster. I give information on fallout shelters and provisions that should be made."

"I give information to home owners and the Civil Defense staff."

It must be added, however, that when asked if their Civil Defense work was voluntary or paid, 19 of the leaders said they had volunteered, as against 14 who said they were paid for this part of their duties. Three of the random sample reported being paid for Civil Defense work; and 11 others said they engaged in voluntary activities of pertinence to the C D program. Thus, again, the Civil Defense activities of the leaders appears to be "ex-officio" in character.

For some months before the present study was undertaken, Austin had been struggling to get a set of sirens functioning

properly as Civil Defense warnings. Malfunctioning, at least partly as a result of deliberate sabotage, had resulted in a long series of tests that did not go off as scheduled, and sirens that did go off when not scheduled to do so. The result had been a barrage of publicity in local newspapers and over local broadcast media, accompanied by the usual jokes and wise cracks. Hence it would be presumed that almost no one would have remained unaware of this activity.

#### AWARENESS OF LOCAL TESTS

But when asked if they knew of any Civil Defense tests in which everyone was expected to participate, only slightly more than half the leaders and less than half the non-leaders replied that they did. If we add as being unaware of the tests those who said they did not know whether they knew or not---the "no answer" and "don't know" categories---we find slightly more than half the non-leaders and slightly less than half the leaders who were able to recall, at the drop of a question, these Civil Defense tests of their community warning system.

TABLE 7  
Item 17

KNOWLEDGE OF LOCAL CIVIL DEFENSE TESTS			
Responses	RS	LDR	Both
No answer	11	3	14
Yes	141	108	249
No	107	81	188
Don't Know	41	8	49

$\chi^2 = .0363$  Not significant

Those who did know of the tests were then asked if they had taken any part in them. In reply, 44 of the 141 non-leaders and 27 of the 108 leaders said they had. In each category, more than twice as many said they had not participated. This leaves a still smaller number who might tell how they had participated and thus give an idea of what sort of Civil Defense activity had drawn active support. Among the leaders, the largest number, eight, probably all school administrators, had taken part in a school drill. Seven had tuned to Conelrad and seven others had closed windows, called children into the house or taken precautions of this order.

TABLE 8  
Item 18

PARTICIPATION IN LOCAL TESTS			
Responses	RS	LDR	Both
No answer	151	87	238
Yes	44	27	71
No	102	86	188
Don't Know	3	0	3

$\chi^2 = 1.23$  Not significant

One had gone to a shelter. Among the non-leaders, 16 had tuned to Conelrad, 11 had taken minor precautions, 4 had participated in a school drill and one had reported to someone at his place of employment.

Too typical of examples of participation in tests were these comments:

"I just looked and listened."

"I thought about what to do."

Ten from the random sample and three of the leader panel said they "just listened" as they went about their normal activities. The evidence is that these persons did not know what to do, or were apathetic about the situation.

TABLE 9  
Item 19

NATURE OF PARTICIPATION IN LOCAL TESTS			
Responses	RS	LDR	Both
No answer	256	174	430
Went to Shelter	0	1	1
Reported to Military Base	0	0	0
Reptd. to job or vol. Organization	1	0	1
Didn't Know What they Were	2	0	2
Drill at school or work	4	8	12
Tuned to Conelrad	16	7	23
Took Limited Precautions (closed windows, called in children, etc)	11	7	18
Went about normal activities-just listened to sirens	10	3	13

Those who reported they had not participated were asked why they had not. The most popular reason, or rationalization, for not having done so was that they "knew" the signal was "Just practice"; this explanation being offered by 46 leaders and 18 from the random sample. As an aside, the much higher percentage of leaders who were aware of the scheduled practice alert is notable. Among the non-leaders 27 reported they did not participate because they went about their usual work--perhaps implying that they did not feel free to drop their work for this purpose. One non-leader and three leaders

said, frankly, that they did not participate because of lack of interest; but this less than one percent category is so small as to be negligible in the overall sense of public interest.

The largest percentage of those who answered this question said they knew it was a practice, or that they went about their normal activities. Typical comments were:

"I felt I was participating by having someone to attend to it."

"That time of day is rushed--too busy--lack of business time."

#### RECOGNITION OF SIGNALS

If the record of participation in the practice alerts was not too reassuring, there may be a wry satisfaction in the further knowledge that if they had taken the siren sounds seriously, some 40 percent of these representative citizens would not have known that the signals meant. Among those in the random sample, 137, or 44 percent said they did not know what the wailing tone signified and 47 others gave wrong answers or did not answer. Thirty-four percent of these informants recognized the signal as an "Alert". The record of the leaders is better. An even 50 percent correctly identified the signal; but 72 said they did not know or did not answer, and only 18 gave incorrect answers.

The recognition test for the "Take Cover" signal followed the same pattern; 31 percent of the leaders and 23 percent of the non-leaders recognized it. But 19 leaders and 10 non-leaders

thought it meant "All Clear"--an error which might very likely be fatal in an actual attack. But again the largest categories for the two groups are the "Don't know", with almost half the leaders and 69 percent of the general population representatives giving this answer. Most of the people made some guess, but could have joined in with the individual who said simply, "Har!"

Questions as to identification of symbols of sounds may be a bit abstract. On the assumption that they are, the situation was made very concrete by asking the informants which signals had been used in Austin tests. The hypothesis that a request for specific information from the informant's own experience would produce greater recall was not supported. Approximately equal proportions of the two panels correctly replied that the "Alert" signal had been used---34 percent of the random sample and 37 percent of the leaders. But appreciable numbers said the "Take Cover" or some other signal had been used and a still larger number said they did not remember. Eleven and 12 percentages of the two categories reported they had not heard the signals.

These persons were then asked to tell exactly what they did when they heard the signals, if they had. Slightly more than half in each category reported they went about their usual activities, and another one-fourth did not answer, saying in effect that they had not heard. Of those who did hear and took action, ten percent of the non-leaders and 6.5 percent of the leaders tuned

to Conelrad, while 7 percent of the random sample and 4.5 percent of the leaders sought additional information to determine the nature of the situation.

TABLE 10  
Item 23

IDENTIFICATION OF WARNING SIGNALS USED LOCALLY			
Responses	RS	LDR	Both
No answer	7	3	10
Alert	105	75	180
Take Cover	33	17	50
Did Not Hear Signal	34	24	58
Does Not Remember	69	33	102
Other	51	48	99
Practice	1	0	1
Air Raid	0	0	0

Of those who answered this question, the majority said they went about their normal activities. However, the range of answers was broad and is indicated by the following quotations:

"Just listened to it--practice alert--usually at work. I am usually disgusted--some feeling that this is a pitiful type of warning. I know what these weapons can do."

"I was drinking coffee. We commented that it was the first one we had heard in six months."

"I was working and did not pay much attention."

"I talked with my assistant."

"Remembered what they said it was supposed to be and went on with normal duties--thankful it was a practice alert and not for real, and prayed that they will always be that way. First one I heard I didn't talk to anyone except my wife--I asked her if she heard it (when I got home)."

"Stop and listen, then see which way it's coming from. I thought war was about to be declared the first time I heard one. I was on Rosewood Avenue collecting my debit--gave me a lonesome feeling. I commented with people on the street, who were also wondering about it."

Here it is interesting to note that there appears a greater tendency on the part of the common citizen than the leader to take the recommended and logical steps. But in view of the fact that more than half of each panel continued their normal activities this conclusion is not justified without further study of larger samples.

TABLE 11  
Item 25d

RECOGNITION OF WARNING SIGNALS			
Responses	RS	LDR	Both
No answer	9	10	19
Yes	79	33	112
No	197	149	346
Don't Recall	15	8	23

In spite of this feeling of uncertainty, it is important to note, the most common reaction to this potentially fatal situation was to go about normal activities; reported by 38 percent of the citizen panel and 10 percent of the leaders.

This may have been caused, in part, by the previous failures of the siren warning system and a consequent feeling that the entire system was of little pertinence to them.

Informants were asked if they had heard a signal and been uncertain of its meaning. Most had not, but 26 percent of the random sample and 16.5 of the leaders had done so.

TABLE 12  
Item 25d

ACTION TAKEN WHEN SIGNAL RECOGNIZED AS WARNING			
Responses	RS	LDR	Both
No answer	224	166	390
Went to shelter	4	1	5
Drill at school or work	13	7	20
Didn't know what they were	1	2	3
Tuned to radio	15	8	23
Took some precautions	3	1	4
Went about normal activities, listened to radio	38	10	48
Don't remember	1	0	1
Miscellaneous	1	1	2
Sought more information	0	4	4

An example of this is, "When they first started they had trouble with them, but we knew they were having trouble, and we thought there was something wrong and that it wasn't a real alert. If you were listening to your radio you could tell there was something wrong."

Of the others, 15 of the random sample and 8 of the leaders turned to radio for more information. Thirteen citizens and 7 leaders reported the signals were followed by school drills. None of the random sample, but four of the leaders, sought information from sources other than the radio.

This actual behavior stands in sharp contrast to the abstract knowledge of appropriate behavior for such a situation revealed by the query ". . . exactly what should a person do when hearing the 'take cover' signal?" Here the correct reply, strongly indicated of course by the question, of "seek shelter" was given by 76 percent of the random sample and 85 percent of the leaders.

But pertinent also are the other actions listed as appropriate by these respondents. From both panels, a total of 15 said one should seek more information. Less than 10 in each case said the thing to do is to flee, to seek one's family members, or to take some unnamed precaution.

In line with findings in disaster studies and also because several persons in this study indicated they were not interested in shelters because their family probably would be separated, it is surprising that so few said they would seek their family. Some examples are:

"I have no idea. Probably go into a panic if I heard the signal and it was not a test."

"Go to a protected place such as a shelter--free from polluted air and where water is available."

"Get into a door if possible, if outside get to some sort of natural barricade and stay there until the signal is over."

"Do not seek one's family--take cover--use cellar if nothing better is at hand."

"Find shelter, but I don't know where to go."

One person thought the best thing to do is to pray. Ignorance of correct procedure was admitted by 44 persons. Four others said they would do nothing and another said flatly, "I wouldn't believe it."

Anticipating that not all persons would know what should be done in case of real or potential attack, and so would not behave in the most effective manner to protect themselves, this series included another hypothetical question asking how the respondent would go about getting more information as to what was happening when warning signals were heard. And, again, the knowledge of what to do does not conform to the actual actions undertaken. Two major actions are indicated on this abstract level--almost equal numbers of the two panels, 112 random and 100 leaders, said one should listen to radio; 97 of the random sample and 48 leaders said one should telephone Civil Defense. Other potential sources of information were listed as C D warden or police, personal friends and neighbors, city and state officials. Only 28 common citizens and 5 leaders confessed they did not know how to get the information they would need.

TABLE 13  
Item 26

SOURCE OF INFORMATION ON HEARING SIGNALS			
Responses	RS	LDR	Both
No answer	2	1	3
Listen to radio	112	100	212
Ask warden or police	9	10	19
Telephone friend	8	3	11
Telephone CD	97	48	145
Telephone City personnel	15	14	29
Tel. State, Fed. personnel	4	5	9
Consult neighbors	3	0	3
Telephone others	18	13	31
Don't Know	28	5	33
Miscellaneous	4	1	5

Some interesting examples were:

"I would call a friend,"

"Some organizations have tried to get Colonel Kengla to speak to them, but he wouldn't come. I don't have too much faith in the local office. GPO sent me some booklets."

"I would write the superintendent of documents in Washington."

"I would ask the Chamber of Commerce."

The entire number of informants were then asked where they should tune a radio if they turned it on seeking information on a possible attack. Thus prompted, the 212 who had mentioned radio spontaneously, were reinforced by 113 others and a total of 315 were able to say should tune to the two Conelrad sets. A total of 102 others said one should tune to a local station, and 19 said one should spin the dial to get any signal available. Fifty-five said they did not know how the radio should be tuned; nine declined to answer.

TABLE 14  
Item 27

RECOGNITION OF CONELRAD SETTINGS			
Responses	RS	LDR	Both
No answer	9	0	9
Conelrad, 640, 1240	171	144	315
Local Station	73	29	102
Spin Dial	11	8	19
Don't Know	36	19	55

In fairness to the Austin informants, it must be pointed out that they also reported a great deal of difficulty in hearing the signals. Only 255 of a total of 500 said they could hear them easily in their homes. In view of the nature of atomic attack, its speed, etc., this hardly seems sufficient. Many people, for instance, made the following comment:

"I have never heard them when I was at home."

Asked if this were true with the windows closed, this number shrank to 198; and asked again if they thought the sirens would wake them at night, only 145 gave a "Yes" reply.

While it turns out that nearly a third of the people feel they would still hear the sirens, not all would be sure of what they were (in some cases). Typical replies are:

"But would not know what it was."

"Not me, anyway."

It should not be concluded from these figures that those not saying they could hear the signals plainly said they could not; in each case almost 100 expressed uncertainty and several others did not answer the query.

TABLE 15  
Item 25a

ABILITY TO HEAR WARNING SIGNALS IN HOME			
Response	RS	LDR	Both
No answer	4	3	7
Yes	168	87	255
No	71	72	143
Don't Know	57	38	95

TABLE 16  
Item 25b

ABILITY TO HEAR WARNING WITH WINDOWS CLOSED			
Response	RS	LDR	Both
No answer	67	37	104
Yes	126	72	198
No	47	53	100
Don't Know	60	38	98

TABLE 17  
Item 25c

WARNINGS WOULD WAKE FROM SLEEP			
Response	RS	LDR	Both
No answer	12	12	24
Yes	98	47	145
No	135	99	234
Don't Know	55	42	97

#### LIKLIHOOD OF WAR

Civil Defense, of course, is a reaction to war or the possibility of war; as was recognized in 1959 by moving most of the Civil Defense agency into the Department of Defense and the announced plans for governmental aid in construction of public fallout shelters. Hence, how people feel about Civil Defense and what they do in preparation of fallout shelters and other Civil Defense recommendations will be tied in intimately with beliefs as to the probability of a shooting war erupting. A fairly detailed section of the schedule was devoted to an exploration of attitudes and beliefs in this area.

Informants were asked if they thought there is anything that the people of the nation can do to make war less likely; and whether they believed there is anything the government of the United States could do to the same end.

TABLE 18  
Item 28

BELIEVE PEOPLE CAN MAKE WAR LESS LIKELY			
Responses	RS	LDR	Both
No answer	0	0	0
Yes	169	158	327
No	68	25	93
Don't know	73	17	90

$$X^2 = 13.55 \quad P < .001$$

Basic optimism is revealed in the overwhelming "Yes" responses to both questions. Of the total number interviewed, 65 percent thought the people can do something to prevent war and 63 percent have a similar faith in the ability of the national government. At the other extreme, only 19 percent thought the people, and 18 percent the government, could do nothing to make war less likely.

It is evident that the people of Austin think war is far from being inevitable; but there is considerable divergence of opinions as to what the people or the government can or should do to avoid open conflict. Perhaps because the two questions were asked consecutively and separately, there is remarkably little coincidence of what these persons say can be done by people and government. Further, many of those who believed something could be done found themselves at a loss when asked to specify what could be done, and either refused to answer or said they had no opinion. This was true of almost half--137-- of the random sample, and may be indicative of unfounded optimism; i.e., "Don't know what do do - but something can be done!"

True to their status as leaders, the second panel included only 38 persons in these categories.

The most popular suggestion for action by the people to avoid war was for closer cooperation of citizens with government-- offered by 19 percent of the random sample and 36.5 of the leaders. The greater emphasis here by the leaders is of particular pertinence in view of the often-repeated charge that the government too often interferes in affairs better left to the citizenship. Among the persons randomly selected, only two other suggestions were offered by 10 percent or more of the informants; more internal unity of peoples and institutions coupled with less criticism of government and more dependence on prayer and the practice of religious principles. Activities of tourists in foreign lands and members of the Peace Corps was cited by 23 of the random sample.

Leaders were much more vocal, and varied, in the suggestions they offered for action by the citizenship generally which might help avoid war. More than 25 percent of them urged better understanding of other nations, and joined the citizen panel in recommending more national unity and reliance on religious principles. Between 20 and 25 percent of the leaders suggested better military preparation, more education as to the nature and dangers of war, and creation of a better national image by tourists, Peace Corp members, and others in foreign lands. Startling to a minor degree, only because of the small number of persons involved, is

the frank espousal of appeasement in one form or another by 7 persons, 4 of whom fell into the leader category. To anticipate, this same response was given by 6 common citizens and 9 leaders in response to the question as to what the government might do to avoid open warfare.

TABLE 19  
Item 29

HOW PEOPLE MAY AID IN PREVENTION OF WAR			
Responses	RS	LDR	Both
No answer, no opinion	137	38	175
Country be better prepared militarily	18	26	44
Citizens cooperate more with govt (police, CD, support of govt., etc)	57	73	130
Create better image of U.S. (Peace Corp, tourists, etc)	23	20	43
Understand other countries better	19	32	51
Educate people about nature of war (avoid panic, etc)	11	32	43
More internal unity (churches, people (less criticism of govt.)	31	22	53
Pray, live Christian lives	31	24	55
Retreatism, stop preparing for war, get rid of present govt., etc.	3	4	7
Yes, but don't know	6	1	7
Miscellaneous	1	2	3

Illustrative of the wide range of answers are the following statements:

"Isolate U.S. from all these overseas enterprises. If U.S. would get out of foreign countries and abandon its plans with respect to Berlin, would make war less likely at this time--for future I am not capable of saying."

"Support Radio Free Europe."

"The citizen should fully support the defense effort--buy bonds, etc., and present a united front to the Communists."

"People could say something to government about conduct of U.S. people abroad, especially servicemen. Demonstrate superior decency of American people abroad."

"Give elected representatives the backing they need and don't get panicked into anything. Must communicate our intention to the world so the world will know our position and not miscalculate."

"People need to have an awakening to the fact that attack is possible. People should urge their Congressmen and Senators to help the U.N. People could go to church and get close to God."

"More communication and understanding between peoples of the world; both in this country and abroad. The Peace Corps is doing a good job. It should be a movement of ideas and concern from one country to another--Christianity is doing this."

Parenthetically, it should be mentioned for the benefit of the statistically minded, that multiple answers were allowed on these questions, so that the totals of percentages will run above 100.

The belief that appeasement should be used to escape war is the only response clearly the same in the lists of suggestions offered as feasible actions by the people and the government. Among the random sample, 46 percent of the respondents professed

to know nothing that might be done by the government. The leaders were again more certain they knew what should be done.

TABLE 20  
Item 30

BELIEVE GOVERNMENT CAN MAKE WAR LESS LIKELY			
Responses	RS	LDR	Both
No answer	2	1	3
Yes	148	170	318
No	76	16	92
Don't Know	74	13	87

$$X^2 = 37.45 \quad P < .001$$

Question 30, much like the preceding one, had a variety of answers, but most of them revolved around standing firm, being prepared and negotiating. These were not conceived as being contradictory terms by the respondents. Some examples of answers were:

"We should not support foreign aid so much and spend more here at home."

"The president must face up to the Russians. I think he is doing so."

"Lend support, such as technical aid in Point IV program. We should give technical aid rather than economic aid."

"If we lived in an idealistic place there would be no need for a government or wars."

"Better preparation, though I do not believe war is inevitable. Khrushchev's not the type to start a war. We must remain better prepared. Our government must take the initiative in building shelters."

"Yes. One, maintain maximum security defenses as a sign of ability to retaliate. Two, continue to negotiate for peace."

"Our leaders are responsible for religious ideas. They must set a good example. We should not be pushed too much--use a big stick--we should almost use a little aggression. We should take a stand and this would deter little disputes."

"We should oust uninformed and misinformed people from C.D. and other government agencies. The public should be educated about fallout and protection. Much information is being published."

TABLE 21  
Item 31

HOW GOVERNMENT MAY MAKE WAR LESS LIKELY			
Responses	RS	LDR	Both
No answer, no opinion	138	22	160
Negotiation, diplomacy	29	31	60
Stand firm, don't compromise or retreat	58	58	116
More understanding, friendly acts, foreign aid	21	34	55
Internal preparedness (civil defense, and unity - less criticism)	14	25	39
External preparedness (arms, military build-up)	28	54	82
Retreatism, give in. . . don't fight- appease.	6	9	15
Stop foreign aid (either total or to communist countries)	5	3	8
More informed public	3	12	15
More radio broadcasts abroad	4	2	6
Doing everything now	26	18	44

Among the persons selected at random and having opinions, the largest category advised a firm national stance with no retreat or compromise. The same number of leaders, but a higher percentage,

because of their smaller total, offered this same basic attitude; giving a percentage of 23 for the total survey who held this opinion.

Very significantly less popular was the advocacy of more negotiation and better use of diplomatic channels; the percentages in this case being 10 and 15 respectively. More notable differences appear between the two panels in the advocacy of military preparedness at home and abroad by 13 percent of the random sample, and 36 percent of the leaders. It must be noted, also, that more than twice as many leaders suggested external preparedness and more emphasis on internal measures, including more support for Civil Defense and similar preparations and greater national unity. Leaders were also more likely, on the basis of very small responses, to place reliance on "more public information."

#### WILL WAR COME TO THIS GENERATION?

Indications from the questions as to whether anything can be done to prevent war indicate a spirit of hopefulness which is dissipated when the same persons were asked, in another part of the schedule for methodological reasons, if they thought this nation was more likely to be engaged in war within the next 20 years than not. Only 27 of the random sample and 19 of the leaders professed to believe that we would get into no wars during that period, though 40 of the random sample and 12 of the leaders said they had no opinion on the matter. However, there was a tendency to think

that the war(s) to come would be limited, rather than of the "World War" variety, the former being named by 26 percent of both samples, the latter by 52 percent, with ten persons expressing the opinion that we would see both varieties. Differences in the proportions of the two samples holding these views was so small as to be unimportant in prediction of another world war. But the leaders were notably more likely to think such wars as come will be limited in scope.

TABLE 22  
Item 112

LIKLIHOOD OF WAR IN TWENTY YEARS			
Responses	RS	LDR	Both
No answer	3	0	3
World war	84	46	130
Limited wars	139	119	258
No war	27	19	46
No opinion	40	12	52
Depends on Russia	1	0	1
One and Two	6	4	10

Two comments in response to this question which could not be categorized in the alternatives are:

"War will come when Russia thinks she's stronger. Khrushchev's life-span depends on this and their attitude."

"War will come probably at night or on a holiday."

Guesses as to when war will come, if it does, ranged from six months or less, to more than 21 years. The most commonly expressed opinion was that war will come within three to five years, held by 20 percent of the random sample and 22.5 percent of the leaders. Guesstimates dropped off sharply in both directions from this category with the leaders more likely to say 6-10 years and to

bunch their guesses within the two to ten year range more than their fellow citizens. Refusals to guess were registered by 185 persons in the form of "No answer", or "Don't know", with the non-leaders showing a slight preference for such replies.

TABLE 23  
Item 113

WHEN WAR IS EXPECTED			
Responses	RS	LDR	Both
No answer	4	1	5
6 mos. or less	19	11	30
7 - 24 mos.	55	38	93
3 - 5 yrs.	59	43	102
6 - 10 yrs	27	28	55
11 - 20 yrs.	11	8	19
21 yrs. or more	4	2	6
Never	7	3	10
Don't know	114	66	180

With a majority of those interviewed of the opinion that war will come in our time, the question of most importance as to construction and use of fallout shelters is, obviously, whether these people also believe they will be in danger from radioactive debris. Two questions were asked to test beliefs in this area; how likely it was thought Texas would be in such danger; and how likely Austin is to receive such an attack. Again the replies are overwhelmingly in the direction of exposure to such peril. Of the total of 500 informants, 410 offered the opinion that the state would be in danger from fallout and 405 said the same for their home city. This contrasts with 16 who said they did not believe Texas would be in danger from fallout and 28 who believed that Austin would be safe in this regard. An additional 33 thought the chances of fallout affecting the state were about

even, and 30 thought this of Austin. Only 36 and 32 claimed to have no opinion on these questions. Differences between the two panels on these questions were slight, though there is a very slight tendency for the leaders to be more of the opinion that fallout would be a danger.

TABLE 24  
Items 114 and 115

EXPECTATION OF LOCAL NUCLEAR ATTACK IN WAR						
Responses	Texas			Austin		
	RS	LDRS	Both	RS	LDRS	Both
Likely	261	187	448	260	180	440
Unlikely	39	13	52	40	20	60

Much the same information was gathered by other questions asked in the context of whether or not war can be prevented. Here informants were asked what sorts of weapons they thought would be used in case this nation were attacked. The replies were overwhelmingly that thermonuclear devices would be used. If we combine those mentioning such devices specifically with others who said "bombs" of unspecified character and rockets or guided missiles would be used, we find a total of 581 mentions---to which should

TABLE 25  
Item 32

TYPES OF WEAPONS EXPECTED			
Responses	RS	LDR	Both
No answer	15	2	17
A-bombs, H-bombs, Nuclear weapons	222	182	404
Bombs (unspecified) planes	54	18	72
Rockets, guided missiles	56	49	105
Sea attack	3	1	4
Germ warfare, biological warfare	3	5	8
Sabotage, subversion	6	5	11
Invasion	3	3	6
Explosives	3	4	7
Conventional weapons	9	6	15
Everything they have	14	11	25
Don't know	4	9	13
Gas warfare, chemical warfare	6	5	11

be added another 25 who said the enemy will use "everything they have." Obviously, more than one type of weapon was named by many of the respondents. Pertinently, no other type of weaponry was named by as many as two percent of the persons interviewed.

In listing the types of weapons likely to be used in case of war, several made comments. A typical comment was:

"Will be started by Russia, We should retaliate with all we have. They will throw full strength against us."

Thermonuclear weapons were deliberately injected into the interview by asking how likely, in case of attack, the respondents felt such bombs would be used against their home town. Since a high majority of the interviewees had responded to a very similar question immediately before, 321 did not reply to this one. Of those who did reply, 82 thought the chance was "good;" 35 said there was "not much chance," and 52 thought the chance of such an attack were only "fair." The remaining ten were not sure or gave

TABLE 26  
Item 33

LIKLIHOOD OF NUCLEAR WEAPON USE			
Responses	RS	LDR	Both
No answer	165	156	321
Good chance	63	19	82
Fair chance	41	11	52
Not much chance	24	11	35
Depends	3	2	5
Don't know	4	1	5

qualified answers. Of those replying, members of the random panel were much more likely to think Austin has a "good" or "fair" chance of being subject to fallout; percentages for common citizens were

47 for a "good chance" and 30 for a "fair" one as compared to 43 and 25 percentage points for the leaders on the same questions.

#### KNOWLEDGE OF FALLOUT EFFECTS

The interviewer then moved into the area of knowledge about fallout by asking what causes the most deaths in a thermonuclear attack. Respondents to the number of 282 specified fallout or other radioactive effects. Named next most often were the immediate effects of blast or concussion; with 201 mentions. In a poor third place among bomb effects, with 54 nominations, came heat, fire and flying debris, etc. Many perhaps assumed heat, fire, etc., concurrent with blast. Contamination of food, water, drugs was also mentioned, as was shock, but by a very small number of persons. Panic was named as a lethal agent by 47 persons. An important difference appeared between the opinions of the two panels. Members of the randomly selected category mentioned blast in only 29 percent of the cases; but 57 percent of the leaders named this as the principal cause of death, perhaps because of working in the downtown area. No such difference appears in consideration of fallout, the percentages here being 53 and 59, respectively. The leaders were also more likely to see heat and fire as causes of death, while the majority of those fearing death from panic were non-leaders.

If there was less than unanimity regarding the lethal properties of bombs, this may have sprung from the fact that less than half the total sample reported having read anything on the

subject--234 of the 500. And, surprisingly, there was found practically no difference in the percentages of leaders and non-leaders who had informed themselves on this vital subject. Percentages here ran at 48 for leaders and 46 for their fellow citizens.

TABLE 27  
Item 34

NATURE OF LETHAL EFFECTS OF NUCLEAR WEAPONS			
Responses	RS	LDR	Both
No answer	26	5	31
Blast, concussion	87	114	201
Fallout, radioactive material, radiation	164	118	282
Falling debris, flying objects	8	7	15
Heat, fire, flashfire	22	32	54
Panic	35	12	47
Shortage of food, water, drugs	1	0	1
Contamination of food, water, drugs	7	1	8
Shock	8	1	9
Don't know	24	7	31
Miscellaneous	8	3	11

TABLE 28  
Item 35

FAMILIARITY WITH FALLOUT			
Responses	RS	LDR	Both
No answer	119	99	218
Yes	137	97	234
Not sure	7	0	7
No	37	4	41

$$\chi^2 = 15.09 \quad P < .001$$

How they had learned the nature of bombs and fallout is something of a mystery in view of the 260 who gave an essentially correct answer when asked to define "fallout" by stating that it consists of radioactive material in the air in dust-like form. Vague indications of contamination as an aftermath of a bomb

explosion were cited by 77 others; and it would not be too unfair to classify these as knowing the essential characteristic. But 22 gave no reply to this query, 18 gave answers so vague as to be unclassifiable, and 49 frankly admitted they did not know what fallout is. The replies to this question give a clear indication of the superior knowledge of the leaders, of whom 70 percent gave the correct description in contrast to only 40 percent of the larger sample. Some examples of answers to this question follow:

TABLE 29  
Item 36

UNDERSTANDING OF FALLOUT			
Responses	RS	LDR	Both
No answer	20	2	22
Radioactive material in air (dust particles)	120	140	260
Vague implication of contamination... aftermath of bomb (no radioactivity mentioned)	48	29	77
Poisonous gas...smell it	12	7	19
Vague implication of harm	25	10	35
Brings disease	1	0	1
Large pieces of debris in air as a result of bomb (wood, bricks, etc)	7	2	9
Rays that harm (vague)	3	3	6
Something that gets in body and on clothes	4	0	4
Don't know	44	5	49
Too vague to be classed	16	2	18

"It is a chemical in the air that destroys tissues and cells, i.e., living matter--not visible unless it is dense."

"It is dust-like particles similar to calcium in composition and these are radioactive."

"I don't know--I'm not up on all this science business. Fumes -- like an exhaust."

"it's a radioactive material in dust which is kicked up in explosion. Strontium 90-iodine 131."

"Dust which emits alpha, beta and gamma rays, the latter are most dangerous."

"Well, the plane comes over and the bomb falls out-- that's fallout, isn't it?"

With the questions as to the nature of thermonuclear weapons and fallout the study more closely approached its fundamental objective; the extent of information on these matters possessed by representative citizens and their leaders, and the attitudes in terms of which their behavior in case of attack might be predicted. This line of inquiry was followed for the remainder of the interview. This effort at more exact determination of knowledge continued with a query as to whether the respondents thought fallout or blast and heat from the explosion would kill more persons. Perhaps the previous discussion of fallout had an effect on the replies, but for whatever reason, slightly more than half--268--of the combined sample replied that fallout would be more deadly while 151 looked to blast and heat as the primary killers. Here again an important difference between the two panels appears. The leaders were much more likely to put greater emphasis on heat and blast; and much less likely to see fallout as the great killer, than were their compatriots. Blast and heat were named by 37 percent of the leaders, but by only 25 percent of the others; fallout was named by 60 percent of the

citizen panel and by only 44 percent of the leaders. Why this difference should exist is important, but this study does not get at material from this depth of the consciousness, and subconsciousness, of the persons interviewed. It would seem a plausible hypothesis that there has grown up a folklore of the "Atom Bomb" and "fallout" that has been taken over more extensively and more uncritically by the people as a whole, than by the better educated and those of higher status. Some confusion existed on this issue, as evidenced by the following quote: "Confused by what I have read about it."

TABLE 30  
Item 37

FALLOUT VS BLAST AND HEAT AS AGENTS OF DEATH FROM BOMB			
Responses	RS	LDR	Both
No answer	4	2	6
Blast and heat	76	75	151
Fallout	180	88	268
Each about the same	11	15	26
Don't know	29	20	49

One of the most pertinent bits of information for planning for protection from fallout is the distance from "ground zero" at which such protection is needed. Information on this point was sought by asking whether it would cover a small or large area, or perhaps the entire earth. For purposes of answering questions from those questioned, a "large" area was arbitrarily defined as one more than 50 miles in some diameter. Under this definition, most of the persons--70 percent--questioned chose the "large" area, with only 20 percent believing it would be confined to a "small" space.

For what it is worth, leaders were slightly more likely to choose this reply. Only two--non leaders--thought it might cover the entire earth. Some made relevant comments, such as:

"If the air is absolutely still it might be limited to 200 miles, but since air is not still, the answer is unknown. Perhaps it could be universal."

"I think there would be no effect unless one were within close proximity of where the bomb exploded."

"Depends upon type of bomb. Even from 15 megaton bomb could be as great an area as 30,000 miles. Dependent upon air waves."

#### PREPARATIONS FOR ATTACK

Greater specificity was injected into the study by the next question, asking what a person might do now to protect himself and his family in case of atomic attack; followed by the often embarrassing query as to which, if any, of these things the informant had done. Answers were "free" in that replies were not suggested, but the more commonly expected replies were listed on the schedule to be checked by the interviewer. Two replies dominated--35 percent of the sample said the best thing one could do was to build a shelter, 31 percent said food, water, and other supplies should be stored in the home. The only other reply of significant size was that information from Civil Defense authorities should be obtained. Non-leaders tended to concentrate their replies in the "Build Shelter"

category and were more likely to admit their ignorance. The proportional division on stocking the home with supplies was almost exactly equal between the two panels.

TABLE 31  
Item 39

POSSIBLE PRE-ATTACK PROTECTIVE MEASURES			
Responses	RS	LDR	Both
No answer	19	12	31
Stock house with food, water	106	47	153
Build shelter, fallout shelter, bomb shelter	167	107	274
Have battery (portable) radio	5	2	7
Have first-aid kit	5	3	8
Obtain information from CD authorities	30	24	54
Know about evacuation plans for this community	19	7	26
Emergency cooking facilities, canned heat	5	0	5
Miscellaneous items available--blankets, candles, flashlight, emergency tools, gas in car	4	5	9
One and two, plus other answers	39	52	91
Miscellaneous	2	3	5
Don't remember, don't know	25	8	33

TABLE 32  
Item 40

PROTECTIVE MEASURES TAKEN			
Responses	RS	LDR	Both
No answer	14	4	18
Stock house with food, water	24	20	44
Build shelter, fallout shelter, bomb shelter	3	8	11
Have battery (portable) radio	11	3	14
Have first-aid kit	11	9	20
Obtain information from CD authorities	15	20	35
Know about evacuation plans for this community	0	3	3
Emergency cooking facilities, canned heat	0	1	1
Misc. items avail.--blankets, candles, gas in car, flashlight, emer. tools	3	8	11
One & two, plus other answers	16	4	20
Don't remember, don't know	228	142	370

In answering Question 39, most people gave supplies and shelter as their answer, and where more than two answers were given it invariably included these two. It is surprising then that so few had done anything. Some of the rationalizations for inactivity were:

"I just don't believe in these things."

"Just get out of town--maybe one or two places in the country. Obvious fallout shelters would be helpful only if large percentage of population has one."

"Has plan where stay in home, draw water quickly, close windows and shades, get in center of house. Afterwards wash off roof and walls. Wear heavy clothes and tin glasses to prevent burns. I have a film which I made which tells about this plan."

"Very little that can be done."

But the picture changes drastically when these persons are asked what they had done. Here the replies of "Don't Know," or "Don't Remember" plus the "No Answer" categories run up to a total of 488. This would indicate, of course, that practically nothing had been done by anyone. But because multiple replies were called for on these two questions, this impression is not quite correct. Specific preparations numbering 155 were reported. But the implication is clear that most of the preparation had been done by a small number of persons. And these preparations were more likely to have been made by leaders--percentages here run 36 to 28. The preparation most often mentioned was a stock of food supplies, with

having obtained information running second. Acquisition of battery radios and other emergency items was mentioned 26 times. Building a shelter was reported in 11 cases as the only preparation, but was also included with other items six times.

#### KNOWLEDGE OF FALLOUT SHELTERS

Having determined that few persons in Austin possessed fallout shelters, the direction of the survey changed at this point toward information as to their character and the need for their use. A great majority of those interviewed said they had heard of fallout shelters, though in view of the widespread discussion it is worth noting that 23 non-leaders and 10 leaders either admitted they had never heard of them or declined to answer the question.

TABLE 33  
Item 41

Responses	HAS HEARD OF HOME FALLOUT SHELTERS		
	RS	LDR	Both
No answer	3	6	9
Yes	277	190	467
No	20	4	24
Don't know	0	0	0

$$\chi^2 = 5.51 \quad P < .02$$

Replies to a follow-up question to those who had heard of fallout shelters asking them to describe such a utility ranged from the very vague "a protective device" to a thorough description of the structure and needed equipment, including such details as ventilator with filter, chemical toilet, etc. If the replies are

divided between those indicating only a vague knowledge of the appropriate structure and contents and a general but correct description of a shelter, we find that 173 make passing grades, while 278 flunk this test. Too, differences between the two categories are significant here. Of non-leaders 62 percent did not give acceptably correct information, while only 45 percent of the leaders failed to do so. Conversely, while 25 percent of the

TABLE 34  
Item 42

UNDERSTANDING OF FALLOUT SHELTER			
Responses	RS	LDR	Both
No answer	20	5	25
General protective device	20	7	27
Vague concept of it-underground-like storm cellar	57	15	72
Vague description of structure--some acquaintance with it - underground with dirt on top - cement	46	31	77
Vague description of structure and equip. (food & water)	65	37	102
General description of shelter	30	40	70
Gen. descrip. of shelter & equip., underground with several ft. of dirt on top, made of concrete & steel, air ventilation, food, water (2 wks) beds, etc.	33	31	64
Thorough description of shelter	6	13	19
Thorough description of shelter & contents - 3 ft. of dirt, underground, airtight, air ventilator, at least 12 in. concrete, chemical toilet, radio, first-aid kit, food, water, beds, etc.	6	14	20
Don't know -- have seen or heard but can't describe	17	7	24

non-leaders gave acceptable descriptions of a shelter and the required equipment, 49 percent of the leaders did so. But again, the

ten percent who would make no effort to answer or admitted they could not give a correct reply, may be cause for some concern. Some of the less extensive answers follow:

"Provides for family--down deep--strong. It should have proper provisions. It is very essential, I suppose, but it is costly, too."

"I don't think they're worth a damn. I wouldn't mess with them personally."

"Kind of insulated room with supplies in it to keep occupants alive for a few weeks. Don't have any confidence in them."

"A room covered by concrete which is ventilated. Has adequate provisions for two or three weeks."

"I have no idea except that it's an underground shelter."

Some arrangements can be made in basement which has 10-30 ft. of coverage above and around it--stocked with food and water and other necessities including bullets for however long would need it."

About half the people knew that two weeks was the recommended time to stay in the shelter, and some knew that the greatest danger was in the first few hours and days. Good examples of this are:

"I think the nation is going to have to come out. I don't think they can stay in two weeks."

"One to two days from what I understand."

In contrast to the "unsatisfactory" performance on the test of knowledge of fallout shelters, the reply most often given to the question as to how long one would need to stay in a fallout shelter

in case of attack was the preferred one, for correctness, of 11 to 14 days; given by a total of 221 persons with leaders being only slightly more likely to have their replies fall in this classification. Even more correctly, an even dozen from each panel replied that the time one would need to remain sheltered would depend on a variety of factors and could not be stated with any degree of certainty in number of days. Other estimates of the time to be spent in shelters ranged from one day to more than one month, but percentages were low in all of these categories. Only 63 persons did not offer an estimate of some sort.

But if Austin citizens were aware of the need for remaining in shelters after a nuclear attack, only 84--17 percent--believed they were adequately prepared to do so for the recommended two weeks. And, again, there was little doubt on this query, a total of 402 informants gave a "No" answer. Nor were the leaders any more prepared than the run of people in the city; percentages running 79 and 81 when the two panels were calculated separately.

Thus, it appears that in this city with better-than-average educational and governmental resources from which much information on nuclear devices and the probabilities of their use in an attack had been used, at the level of knowledge, there was much less action flowing from this knowledge in a form that would increase their chances of survival in the event their fears are proved to be well founded.

#### PREPARATIONS BY HOME OWNERS

There are, of course, many factors other than knowledge which enter into the decision as to building and stocking a fallout shelter; and these were explored in this study to some degree, beginning with the type of residence occupied. The first question in this sequence was whether the informant lived in a single or multiple dwelling. More than 80 percent--417--of our sample live in one-family homes, with the remainder divided about equally between two-family units and those with three or more families. Somewhat surprisingly in a small city with a large university, only 8 persons were caught who lived in student dorms or similar places. Further, 329 of the families contacted owned their homes. As would be anticipated, leaders were somewhat more likely to live in houses owned by them; 79 percent of them did. Thus we have a sample of 329 families---172 from the random sample and 157 leaders--living in their own homes and, presumably, more likely to be interested in construction of a shelter.\*

Whether the home owners had taken measures to provide fallout protection was then explored, first by the straightforward question of whether they had a fallout shelter. Only 17 affirmative replies were received, while 318 said they did not. The two who did not reply might with confidence be placed in the latter category. The leaders were somewhat more likely to have

\* See Page 13, Table 10

such a protection, but percentages in both cases were very near five--large enough to have great significance as a measure of the failure of the citizens to have taken this measure of self-protection, but not large enough to give a reliable indication of any difference between the two types of informants.

TABLE 35  
Item 47

POSSESSION OF HOME FALLOUT SHELTER BY HOME OWNERS			
Responses	RS	LDR	Both
No answer	123	42	165
Yes	8	9	17
No	169	149	318

$\chi^2 = .27$  Not significant

But if the reasons impelling these 17 persons to have provided fallout shelters could be ascertained, perhaps clues to a more effective program of persuasion would be uncovered. With this in mind, these persons were queried intensively as to why they had made this investment in safety. Their replies cluster around the idea of family protection, though two persons added protection for others to that of their own families and two others said they had built a shelter because they believed war will come to Austin when it starts.

TABLE 36  
Item 48

REASONS WHY SHELTER WAS ACQUIRED			
Responses	RS	LDR	Both
No answer	295	193	488
Protection of family	3	4	7
Protection of family & others	1	1	2
War will come here when it starts	1	1	2
Everyone else is doing it	1	0	1

There was no pattern to the answers about why they had built fallout shelters, but this is not surprising since the number who had built were so few. This point will be discussed in detail later. The following examples of reasons given might be considered representative:

"I feel there is a potential danger and, rather than put head in sand, felt that every precaution should be taken to safeguard family. Also, by doing my bit I could help create a deterrent to nuclear attack."

"I know the danger that we are facing. It's a form of insurance like life or health insurance. I took a team from the strategic bomb survey to survey the damage at Nagasaki."

When the interview turned to a query as to how many of the home owners had plans for building a fallout shelter in the future, the picture brightened--but not much. Affirmative replies were given to the question by 50 informants; but 214 said they had no such intentions. On the basis of these replies, it would appear

TABLE 37  
Item 49

INTENTION OF BUILDING FALLOUT SHELTER			
Responses	RS	LDR	Both
No answer	131	49	180
Yes	28	22	50
No	117	97	214
Don't Know	24	32	56

$x^2 = .02$  Not significant

that about two-thirds of those who own homes do not have shelters and do not intend to provide such protection for themselves. Again, protection for their families was given as the chief reason for plans to

build a shelter in almost all these cases, though protection for others and a belief that war will come to Austin also entered. A reason not appearing among the replies of those who had shelters makes its appearance here--shelters are seen by two of these respondents as having use for other purposes as well as for protection from nuclear attack. Many of the respondents expressed some uncertainty, such as this one: "Depends on the future, if it justifies going ahead, yes--but not right now."

With a great majority of the informants not having shelters and not having any plans for acquiring one, attention turned to the thinking of this portion of the sample with a query as to why these particular persons had reacted as they had.

Though the query as to why the informant had not built or planned to build a shelter was couched in conciliatory terms, "There are many reasons why a person may not have built a home fallout shelter," here for the first time in the schedule, a very high refusal rate was encountered, indicating definite resentment at, or embarrassment by, the inquiry. Whatever the cause, half the random sample and 31 percent of the leaders did not reply. But the reasons advanced by those who did reply give the needed information in terms of which the lack of action may be understood and on which plans for changing this action pattern may be made. The reason most often advanced was that of cost, offered by slightly more than one-fourth of the entire sample. Of interest here, the leaders---of higher economic status, offered this reason slightly more often in

proportion than did members of the random sample. Leaders were also more ready, to a highly significant degree, to admit that they lacked concern with the issue; and that shelters are useless or inadequate; and, finally, that we are not in great danger from the "Bomb" or if we were attacked, the person interviewed or other members of his family would not be able to use a shelter; the family would be separated and one would refuse to enter without the others, or similar statements. Though inspection of the figures seems to indicate more opposition to shelters from the leaders, this is misleading. It seems, on closer inspection, that the leaders are merely more adept in expressing reasons, or rationalizations, for their position; while the non-leaders simply do not reply, leaving the inquirer free to draw his own conclusions as to why they have taken no action.

As pointed out, of those who gave reason for their not wanting to have shelters built, the larger proportion said that finance was the main reason. Most of the rest, however, were just not convinced of their necessity or usefulness. Typical replies were:

"Right now--it is new and I don't believe in doing it right away without consideration."

"Mainly, do not sufficiently feel one is necessary--not justified by danger of present attack. The expense is not reasonable under present circumstances--in this part of the world we have reasonably ready access to wide-open non-target spaces. If I were in the East I might do something."

"Not able. Main reason, we are usually away from home and scattered so we wouldn't be there anyway. Couldn't use it anyway. Couldn't turn neighbors away anyway."

TABLE 38  
Item 51

REASONS FOR NOT BUILDING FALLOUT SHELTER			
Responses	RS	LDR	Both
No ans., no opinion	151	63	214
Lack of concern	24	27	51
Too expensive to build	75	57	132
Too expensive after built	2	0	2
Wants community shelter	2	10	12
They are useless. Not adequate protection, won't do any good! Family might not be together or won't withstand attack.	20	21	41
Don't want to live after attack of "A" bombs	2	5	7
Move about too much	8	4	12
Bomb will not come, no way, wouldn't be used, not necessary	6	10	16
Too vague	10	3	13

"Since Austin would be prime target, it wouldn't survive anyway. A shelter I would have would be out of my financial range."

"I don't know. Foolish hope that there will not be an attack. The thought is so repelling that we don't like to think about it."

"Economic reasons. Religious convictions--if I am one of a few survivors in Austin I'm not sure I want to survive. I'm more concerned with my soul than I am with my physical being."

"I have no need of it because I am alone."

Apparently accepting the most frequently offered reason for not being interested in a home shelter, the designers of the schedule

then proceeded to delve a bit more deeply by asking if the informants would be interested in spending \$500 for a shelter. The replies are illuminating. In both panels, the same percentages of the respondents say they would be; and would not be-- that is, the responses are equally divided within the panels, though the leaders again are more expressive so that higher proportions of this category are found on both sides of the question.

TABLE 39  
Item 52

\$500 SHELTER WOULD INTEREST			
Responses	RS	LDR	Both
No answer	142	64	206
Yes, would	62	61	123
No, would not	63	59	122
Don't know	33	16	49
$\chi^2 = .04$ Not significant			

TABLE 40  
Item 53

\$200 MATERIAL KIT WOULD INTEREST			
Responses	RS	LDR	Both
No answer	142	64	206
Yes, would	67	44	111
No, would not	65	79	144
Don't know	26	13	39
$\chi^2 = 5.81$ P < .02			

If \$500 may be a sum of money not readily available, further probing was done by asking if the respondents would be interested if they could buy the needed materials for a shelter for about \$200; an obvious appeal to the "Do It Yourself--Everyman His Own Builder" promotion of the past few years. This produced no change in the

attitudes expressed by the random sample, but leaders reacted negatively; 22 percent said they would be interested, but 39 percent remained aloof from the idea. Percentage of the random sample indicating interest in a \$200 kit was 22; of those of this category refusing the rise to this idea, also 22.

TABLE 41  
Item 54

REASONS FOR LACK OF INTEREST IN CHEAP SHELTER			
Responses	RS	LDR	Both
No answer	240	141	381
Too expensive to build	18	6	24
No need for one, bomb won't come here, no war, etc.	10	6	16
Don't have time	2	1	3
Not adequate protection, useless, etc.	7	21	28
Lack of concern	7	7	14
Don't know how to build one	5	6	11
Don't want to live after an attack of atomic bombs	3	3	6
Miscellaneous	5	9	14
Don't know	3	0	3

Having led the informants by this series of questions to look at their actions and the underlying motivations, those who said they would be interested in neither a \$500 shelter built for them or in a \$200 kit of materials, were asked why they felt this way. This is, it will be recognized, a repeat of a question asked shortly before in the course of the interview; and it drew the same fundamental replies---too great expense, shelters would not provide adequate protection, a frank revelation of lack of concern. Some examples are:

"Would build one for \$2,000 if convinced it is the thing to do."

"Would call for physical labor."

"I feel that there are other things that I need to do for my home. I am not convinced it is necessary."

"I don't care whether it kills me or it doesn't."

#### REACTIONS OF RENTERS

Attention was turned to residents in rented quarters of all sizes and in multiple dwellings as a special category, since these people face a situation distinctly different than those who live in their own homes. The first query to the renters asked if there was a place in which the informant could take shelter in case of attack. Twenty of the random sample and 15 of the leaders said there was; but 102 of the random sample and 27 of the leaders replied in the negative. The indication is that leaders are significantly more likely to have shelters or areas in their homes which they considered useable as shelters.

TABLE 42  
Item 55

<u>AVAILABILITY OF SHELTERED AREA IN APARTMENTS AND RENTED HOMES</u>			
<u>Responses</u>	<u>RS</u>	<u>LDR</u>	<u>Both</u>
No answer	175	157	332
Yes	20	15	35
No	102	27	129
Don't know	3	1	4

But further inquiry revealed that in no case was the area mentioned especially prepared as a shelter, in spite of the fact that in 36 instances it had been officially designated as a shelter area. In 38 cases the area to be used was described

simply as a "convenient location" or something of this nature. The only dwelling shelters found in Austin which are built and equipped as shelters, it seems, are those in privately owned homes.

Probing further by asking that the area to be used be described, revealed that 11 of the rooms were basements, 15 were described as cellars, and 18 as a room in the house, a hallway, or some similar place. Here also occurred one of the anomalies of this bit of research; a leader who had previously said he had no specially prepared shelter area, on this question said that in the place in which he lives there was a specially prepared and stocked area. Fortunately, his name was "One" rather than "Legion!" Obviously, those who live in rented dwellings and apartment houses in this city were not provided with fallout shelters even to the very limited extent that home owners had provided this protection for themselves and their families. As of November, 1961, Austin had not become interested enough in the menace of fallout to do anything about it other than talk.

Some people felt they could achieve adequate protection in their home, such as the man who answered: "I would use a closet in the center of the house. It would be useful in case of attack."

#### DEMONSTRATION SHELTERS AS SOURCES OF INFORMATION

Having probed the dimensions of the shelter provisions in the city, the survey returned to the less embarrassing matter of

information. All those except the 17 who said they had such shelters were asked what they would do if they wanted to obtain information on this subject. Civil Defense was cited by the vast majority of those contacted as the source of information they would tap. No less than 370 of the 500 persons interviewed said they would contact local Civil Defense officials and/or read literature already distributed on Civil Defense. One person, a leader, said he would inspect the demonstration fallout shelter constructed by Civil Defense a couple of years ago near a municipal swimming pool and recreational park. Other possible sources of information on shelters mentioned were articles in periodicals, military personnel, building contractors, friends and relatives, and city officials. But the highest of these potential sources, building contractors, was named by less than 6 percent of those in the sample. A slightly larger number said they did not know where to turn for such information. Below are listed some of the answers:

"Read the Austin American articles by Teller. Call the local C.D."

"Ask anyone except commercial dealers or investigate shelters first."

"Consult analyses and prescriptions published in Science to find out best and cheapest. Call certain companies working on it. Check Consumers Digest. Then do the best I could on that."

"Call one of deacons in church who is principal of school and an usher who has been taking the CD course."

"Civil Defense has information, but I don't intend to use it."

"Write to KTBC-TV, or write to Chamber of Commerce, the police station or Zilker Park (demonstration shelter) or Post Office, or office dealing with national defense."

TABLE 43  
Item 60

HAVE SEEN HOME FALLOUT SHELTER			
Responses	RS	LDR	Both
No answer	2	5	7
Yes	115	115	230
No	175	78	253
Don't know	3	1	4
Yes, on TV, in magazine	5	1	6

$$X^2 = 18.45 \quad P < .001$$

It will be recalled that only one person said he would visit a demonstration shelter if he wanted to know more about them. This did not mean, of course, that he was the only person in the sample who had seen an actual shelter; as revealed by a question asking for this information. Just over half--253--of the total sample said they had not; 230 said they had and 6 others said they had seen shelters on TV or pictured in printed sources of information. Leaders were much more likely to have seen a shelter than others, the percentages here being 58 and 38, respectively. When the converse percentages are calculated, the figures are reversed; 39 percent of the leaders and 58 percent of the non-leaders said they had not seen

a shelter.

Some indication of the effects of the intensive campaign staged by Civil Defense during the latter part of 1961 appears in the statistic that of those who had seen a shelter, a larger number had done so in the month before they were interviewed than in any other month of the year, and that the great majority of those who had seen a shelter at all had done so within the prior three months. Further, by far the greater portion of the shelters seen had been those built for demonstration purposes. Next in importance as a source of shelters seen was sales campaigns by contractors or salesmen and running slightly behind this source, those built for residences.

Differences between the leader and others are highly pertinent in this series on having seen a shelter. Leaders had seen a specimen more recently--within two months, had been more likely to visit a demonstration shelter and to have looked at those offered for sale; but were not more likely to have seen one built at a residence.

TABLE 44  
Item 63

IMPRESSION OF SHELTERS SEEN			
Responses	RS	LDR	Both
No answer	187	85	272
Favorable	70	58	128
Unfavorable	32	50	82
Don't know	11	7	18

Of those who had seen a shelter, the majority was favorably impressed, but this result is due almost entirely to the attitudes

of the non-leaders. Among these, 70 reported their impressions were favorable, while only 32 reacted negatively. Among leaders, on the other hand, the two numbers, respectively, become 58 and 50. Eleven other non-leaders and 7 other leaders declined to express an opinion on the shelters they had seen.

Comments favorable to the shelters seen were that they seemed capable of protecting from fallout, were well built, big enough and comfortable. But those who did not like them usually said they were too small, with a few objecting that they were not well constructed or equipped. Nine said they were too expensive. Altogether, 104 favorable replies were received as against 86 unfavorable ones.

Typical of adverse comments are these:

"Seemed too small."

"In general, my impressions were unfavorable. There is nothing to indicate it would actually be effective."

"I thought it was inadequate. There wasn't enough room. But it looked strong."

"Awfully uncomfortable--too small for four people jammed up for as much as a week. That is not a significant factor, however."

"I don't know---I still wouldn't want to live in there."

"Too small---but if it's the cheapest, I would buy."

More favorable comments ran in this fashion:

"Cramped and a bit primitive, but I had a sense of security."

"Looked like something you could live in."

"I couldn't live with my husband in one room for two weeks."

"It would be helpful even in a natural disaster. You feel more secure."

"Showed how it could be used for a den or family room."

TABLE 45  
Item 64

BASES OF IMPRESSION OF SHELTER SEEN			
Responses	RS	LDR	Both
No answer	196	93	289
Would protect from fallout	20	16	36
Well stocked, equipped	8	1	9
Very well built	22	12	34
Big enough, comfortable	7	16	23
One and Three	7	5	12
Too small	23	36	59
Not built well, or stocked & equipped well	6	12	18
Too expensive	5	4	9
Don't know, vague	6	4	10
Miscellaneous	0	1	1

This question was immediately followed by one asking what the person being interviewed thought others who had seen the shelter thought of it. Persons are often free to attribute to vague other persons, ideas and actions they hesitate to report as their own. Perhaps this was the case here, perhaps not. But 39 informants said others were favorably impressed, as against 26 thought to have been unfavorably affected.

One of the primary purposes of the demonstration shelters built with Civil Defense aid was to increase curiosity as to

these protective devices and give Civil Defense officials an opportunity to satisfy that curiosity. Hence, persons who said they had seen a fallout shelter were asked if, afterwards, they had made any effort to obtain more information. In reply, 58 said they had; 171 said they had not. Here, again, the sources of information tapped are as important as the fact that 58 persons did seek more information. Civil Defense and printed literature turned out to be the two most often used sources of information in this test. Nine persons had called Civil Defense and 12 others had read Civil Defense materials, they reported. Magazines, newspapers and similar sources had been used by 13 others. Interestingly, no one mentioned the broadcast media as being used for this purpose. Leaders were more likely to use Civil Defense sources; non-leaders placed more reliance on friends and other more familiar resources.

TABLE 46  
Item 66

ATTEMPT TO GET INFORMATION AFTER SEEING SHELTER			
Responses	FS	LDR	Both
No answer	186	85	271
Yes	26	32	58
No	88	83	171
Don't remember	0	0	0

$\chi^2 = .76$  Not significant

#### HOW TO ENCOURAGE SHELTER CONSTRUCTION

Using the principle of personal involvement, the respondents were asked to voice suggestions as to how people might be encouraged to build fallout shelters. The replies constitute a recognition of what this study has demonstrated, a basic lack of awareness of the

need for this type of protection. If we add replies categorized as "Make people aware of their true danger" and "More information on how to survive is needed", we have a total of 146 respondents who feel this is the most promising approach. But considerable percentages also recommended making them less expensive, either with or without governmental subsidy. The leaders suggested governmental aid 27 times, as contrasted to the larger number of non-leaders offering this suggestion only 10 times. No leader failed to come up with some suggestion for promoting greater fallout shelter construction.

TABLE 47  
Item 68

SUGGESTIONS FOR ENCOURAGING CONSTRUCTION OF SHELTERS			
Responses	RS	LDR	Both
No answer	18	0	18
Make them cheaper--less expensive	29	17	46
Make people aware of true danger	40	17	57
Organized program for building them (national, neighborhood)	32	24	56
If a few were built, others would be encouraged (contagious)	5	2	7
More information on how to survive needed(TV, etc.--convince Americans they could survive)	46	43	89
Govt. aid needed (direct aid or don't tax them, etc.)	10	27	37
Miscellaneous	5	4	9
No or none	103	61	164
Don't know	10	3	13
One and two	2	2	4

Suggestions for encouraging construction of home shelters ran the gamut from approval to disapproval of the idea and the program now underway:

"Present publicity over TV, radio, magazines and local

newspapers and local officials is doing well in getting people to realize how serious it is. The present campaign should be continued."

"Have more discussion groups among people with films. This will change their attitudes."

A college professor -- "Let the Government arrive at criteria as to what type of structure would be adequate; Government should finance construction, some say; but I would prefer the community type."

And from another school man, -- "Drop the fear appeal. Provide public shelters. Standardize and guarantee shelter designs."

The social-psychological factor was brought in by an administrator, "Keep on with the Cold War and eventually more people will become conscious of the need."

"Develop confidence in Civil Defense...better communication and less controversy. People don't know whom they should believe anymore."

"Use fear for patriotic purposes. The public must be sold."

"Build public shelters so we won't be faced with turning neighbors away; and also because families are scattered."

"Shelters should be included in home contracts just as bathrooms are."

Essentially negative responses are illustrated by these:

"Many people don't feel it is necessary. As a pastor, I couldn't go to a shelter as I would be called to help others."

"Many don't want to waste time and money unnecessarily."

After getting the suggestions volunteered by the informants,

certain possible means of encouraging or forcing construction were mentioned. Informants were asked how they would feel about a law that would provide exemption from taxes for shelters, for example. This device was hailed by 372 of the total of 500 persons interviewed. Both leaders and non-leaders gave the proposal a clear majority, though the non-leaders were somewhat more favorably inclined than the leaders. Conversely, while one-fourth of the leaders expressed opposition to this idea, only eight percent of the ordinary citizens did so.

TABLE 48  
Item 69

FAVORABLE VS ANTAGONISTIC ATTITUDES TOWARD TAX EXEMPTION FOR SHELTERS			
Responses	RS	LDR	Both
No answer	0	2	2
Favor	239	133	372
Opposed	24	50	74
Wouldn't care either way	18	10	28
Don't know	19	5	24

$$X^2 = 25.84 \quad P < .001$$

Probed for their reasons for opposing, or favoring, tax exemption, those in favor plumped for the economic motive, "More people could afford them." They also pointed out that shelters are essential in our world, as a means of survival under possible conditions; that the land is already taxed; we have more than enough taxes already, so why add this variety.

Those who disliked the idea pointed out that the tax would not amount to much and that we can not rely on government for everything--- there are some things we should do for ourselves. But the major objection raised was that tax exemption would be of benefit to those

with money to build shelters, but would do nothing for those too poor to do so; thus that it would help those not in need of help and would be of no benefit to those who do need help. This line of argument was offered by 35 persons, of whom 29 were in the leader classification and more able to meet the expense from their own funds. On the whole, it is clear that the leaders are less inclined to tax exemption than are their fellows, both in expressed opposition and in lack of reasons named for favoring the proposal.

Pro's and con's of the argument on tax exemption are illustrated by these quotations from respondents:

"We're taxed enough already. People would be more eager to build if there were no tax, though."

"It's a part of improvement of the home; an increase in value of the property."

"I wouldn't want a tax to be a factor to prohibit survival of some who could not pay."

"This is for the survival of the country."

"Seems silly to tax a weapon of defense."

"Money is scarce."

"If medical expenses are deductible, shelters should be, too."

"It would tend to encourage construction and maintenance of shelters. It all boils down to--you're not going to get anywhere unless most of your people have it."

"Government ought not to prosper on such things as survival."

But the negative also has voluble spokesmen:

"Would amount to little; and cost too much to administer."

"Each of us should bear a share of the load."

TABLE 49  
Item 70

ATTITUDES TOWARD COMPULSORY SHELTER CONSTRUCTION			
Responses	RS	LDR	Both
No answer	34	11	45
Encourage bldg.--more people could afford	116	70	186
Taxed enough, land already taxed	43	11	54
Shelters are essential, get away from bomb, not tax something for survival, help protect people	70	51	121
Use for other purpose--way to get it built	2	3	5
Favor--don't use every day, i.e. won't benefit in other ways from it. Not a luxury	4	4	8
Oppose--would not use it much--not essential & tax cut wouldn't be significant.	2	11	13
Govt. should not do everything, our responsibility	9	6	15
Poor can't afford shelters, rich would be getting out of taxes, people would abuse it, evade taxes, while increasing property value.	6	29	35
Don't know	14	4	18

"It is not necessary. That is not a good excuse for tax exemption---it's for your own survival."

"I don't think it would encourage shelter building, but it would lead to abuses by people who would falsely label much new construction "shelter area."

"Anyone who can afford to build can afford to pay taxes--- there would be no uniformity without an army of inspectors--- impossible to administer."

"You can't exempt yourself from providing protection for yourself."

The matter of motivation for construction of shelters was approached obliquely, by inquiring if the respondents knew anyone who has such a facility; and then asking why, in their opinion, it had been built. Leaders were more likely to know someone with a shelter and to think it had been built for family protection. Non-leaders were more likely to say it had been built for some other purpose and then converted to use as a fallout shelter---originally had been a storm cellar for protection from tornadoes, for example. A hint of growing popularity of the idea of having fallout shelters is gained from the four persons who said they thought those they knew who had a shelter had acquired it because "everybody is doing it." But for almost four of each five persons, the question was not pertinent or they did not reply for some other reason.

Motives attributed to others who had built shelters probably are those which would apply to the informant were he in the other's position. Most typical, and succinct is:

"Fear."

"To protect their children."

"Just playing it safe."

"They appreciated the need---he is a policeman. We can do the things we put first."

"Got O C D to put it there as a demonstration. Politics. She was president of the Ladies Auxiliary of a well known veterans' organi-

zation."

Once again, the interview schedule led the respondents back to the matter of information, asking if anything had been read or heard about fallout shelters recently. And again most of the panel said they had, with the leaders being more likely to have done so and much less likely not to have done so.

TABLE 50  
Item 73

REGENCY OF INFORMATION ON FALLOUT SHELTERS			
Responses	RS	LDR	Both
No answer	8	3	11
Yes	183	154	337
No, don't know	108	43	151
Don't recall	1	0	1

Printed materials again proved to be the chief reliance for information, with the broadcast media of mass communication a poor second in this situation. Civil Defense literature was cited by 17 leaders and 8 others and salesmen of shelters were mentioned by 8 persons. Discussions, formal or informal, had served to inform 14 persons.

The sorts of information acquired recently were widely varied; and not always entirely accurate:

"I read a Civil Defense kit, the Austin Statesman, Dallas News, Life magazine. Just read generally, don't remember exactly."

"Read descriptions and saw pictures. Saw a debate on TV. about whether or not to protect your neighbors in your shelter."

"Advertisements."

"People write letters and ask about equipment. Many shelters built are no good."

"Crooks are selling sub-standard fallout shelters---if interested, a person should contact C D, or the Better Business Bureau."

"A published article about a shelter which was destroyed by rain."

TABLE 51  
Item 75

CONTENT OF RECENT INFORMATION ON SHELTERS			
Responses	RS	LDR	Both
No answer	126	50	176
Construction and/or price of shelter	59	44	103
Equipping of shelter	3	0	3
One and two	29	25	54
Demonstration shelter (ex: Barton Springs)	5	1	6
Life in shelter (ex: Davis' shelter)	21	14	35
Local CD program	6	3	9
Discussion of advisability of shelter (pro or con)	32	34	66
Three and Seven	8	21	29
Don't remember	11	8	19

"Question of should you shoot your buddy if he breaks into your shelter."

"An article said they could be built practically."

"About the kinds and cost of shelters; and how you can put them together yourself."

"Proposal that Government enable people to become financially able to buy them."

"The President would help supply food, etc."

"President Kennedy said they are going to offer shelters for \$150."

Content of the information acquired centered on construction and price of shelters, with argumentation pro and con as to the need for them next most often cited. Since leaders gave only a 25 percent "No answer" reply to this question, as compared to 42 percent of the others who could not remember anything they had heard or read recently on this topic, it follows that the leaders were more likely to cite almost all of the remembered material in higher proportion. This is true; and serves to point up one of the fundamental findings of this survey--that the leaders are better informed and more vocal. Perhaps this is why they are leaders.

TABLE 52  
Item 76

LEGAL VS VOLUNTARY REQUIREMENT OF HOME SHELTERS			
Responses	RS	LDR	Both
No answer	2	0	2
Required by law	48	22	70
Voluntary basis	227	161	388
Public shelters needed	4	1	5
No opinion	17	9	26
No, should not be pushed	2	7	9

A second question on governmental action designed to increase the number of home shelters asked whether the respondent thought they should be required by law. The 70 who agreed they should were overwhelmed by the 388 who said this was something to be done on a voluntary basis only. Slightly more than 76 percent of the non-leaders and 81 percent of the leaders shared this opinion.

No item on the schedule arouses so much feeling, it appears,

as that concerning compulsory shelter construction. While most of it was negative, proponents also had their say:

"Everyone should be entitled to protection. Mother and Father might not want it; but the children are entitled to it."

"People wouldn't provide shelters unless forced."

"A lot of people wouldn't be able to build them. . .be good if the law stepped in and forced people to build something."

". . .might handle cost as we do paving, shared with government."

"We may have to; but we will have to help some of the people."

"Building shelters is in the interest of national defense."

But most of the respondents vetoed compulsion:

"Our strength lies in individual initiative."

"I advocate the American way of life and individual decisions."

"An infringement of civil rights and the Constitution."

"I wouldn't want to force anyone. Each person builds these things to accomodate his own family."

"Pressure groups will make unfair amounts of money if people are forced to build. If a man wants to build one, it's up to him. We can't impose our beliefs on others."

"We have too much compulsion now. If a man wants to survive, it's up to him."

"If people don't care about personal survival, to hell with them."

"If I don't have money, I should not be forced to. Lot's of people can't afford it."

"Would be nothing I could do to obey that law. A person renting could no more provide a shelter for himself than he could fly to the moon."

"Government has not determined whether or not it is practical to build them---even by force."

But when the question was changed from home to public shelters required by law, so did the opinions. This proposal found favor with 322 of the respondents, better than 62 percent of them all. Opposition was expressed by 132 others, of whom 83 were in the leader category. Similarly those in favor were more likely to be non-leaders; percentages here being 76 and 48 for the two classes of informants.

Note the distinct difference in attitudes expressed toward compulsory private and public shelters:

"I don't think public shelters are practical. We must prevent war."

"More people would be killed trying to get in than otherwise."

"Some communities don't need them. Cities should decide if they need them."

"I think it's not the Government's duty; it is up to the people to look out for themselves in such matters."

"I like the idea because they would be close to my work. . . but if money is appropriated from taxes, I vote "No."

"I don't think people should be forced to do anything they don't want to do."

"The city couldn't build shelters to take care of everybody in Austin. It would break the city."

"You couldn't regulate it. I am opposed to the law; not to public shelters."

"Would not go so far as to require them; would go along with a law to encourage them."

Proponents are more emphatic:

"I think it is long overdue. We have accumulated large numbers of people in a small area with no shelter. It is a must."

"It's the only way to protect everyone. If at work, a home shelter would do little good."

"People would accept it more. Not everyone can afford a shelter; and if war doesn't come it can be used for other purposes."

"The Government should provide protection."

And then there was the professor who said, "There are too many facets to this question to give a didactic answer."

TABLE 53  
Item 77

STATUTORY PROVISION OF PUBLIC SHELTERS			
Responses	RS	LDR	Both
No answer	1	0	1
Favor	226	96	322
Oppose	49	83	132
No Opinion	24	21	45

$\chi^2 = 75.32 \quad P < .001$

An interesting sidelight on leadership was thrown by the question as to "what sort of person in this community would be the best authority on fallout." University professors, usually not thought of as occupying leadership positions, were named 163 times for the most numerous mention, as compared to 112 mentions of Civil Defense officials. Of further importance to the college professors, they were more likely to be named by leaders than by others; though it must be remembered that an appreciable portion of the leaders interviewed are University of Texas personnel. Physicians, military personnel and political officers were also often named in this category. "Don't Know" replies were given by 73 non-leaders and 12 leaders.

TABLE 54  
Item 78

IDENTIFICATION OF AUTHORITIES ON FALLOUT EFFECTS			
Responses	RS	LDR	Both
No answer	3	1	4
Clergy	4	3	7
Prof. at Univ. - Scientist	75	88	163
Doctor	33	21	54
Military personnel	21	16	37
A friend or relative who is trained in these matters	12	0	12
Builder-contractor of shelters	4	2	6
Civil Defense personnel	60	52	112
City-county-state official (police-fire., etc.)	14	5	19
Don't know	73	12	85
Red Cross	1	0	1

The presence of the University of Texas makes itself clearly evident when the respondents came to describe the type of person they would accept as an authority on the effects of fallout:

"A professor of physics."

"University physics or biochemistry prof."

"Probably a physicist or biologist at U.T. or a member of a public health agency."

"Some of the professors who have had experience in this."

"Nuclear physicists; Dr. Clarence P. Oliver on genetic effects; a physician who had taken a course in Civil Defense."

"Doctor, especially one with experience in the Japanese area."

"Officers of the Texas Military District--they would have more background in the effects of the "A" bomb than the Civil Defense people in this area, and more access to exact information."

"Air Force personnel and professors at the University."

#### ATTITUDES TOWARD ACTIVE AID TO CIVIL DEFENSE

One of the focal points of this study is the difference between leaders and non-leaders in their attitudes toward and information about fallout shelters. This has appeared repeatedly in the report to this point; but the emphasis is increased by using with the entire panel of informants a series of queries designed originally for leaders only. These begin with a question as to whether the person has been asked to work in promoting Civil Defense in Austin. Of the 500 persons interviewed, 64 replied that they had received such a request. As expected, leaders were much more likely to have had such a request; in fact, 92 percent of the

non-leaders said they had not been asked to cooperate, whereas 22 percent of the leaders had been asked to do so.

Requests made of the 64 persons had ranged through serving as a block chairman, through passing out literature, making speeches or showing films to becoming a trainer-teacher of Civil Defense courses. Five leaders reported they had been asked to do something, but could not remember what it was. But 55 of the 64 asked to aid in the Civil Defense program said they had done so. Those who had not done so reported they had not had time enough to permit this service, with the exception of one non-leader who said he was not interested, and one leader who said he was not sufficiently prepared.

On a hypothetical basis, "If you were asked," 226 of the 500 studied said they thought they would accept a speech-making assignment, while 242 said they thought they would refuse. Refusal to commit themselves in advance was voiced by 29 others. Asked why they would not, 114 said they did not have the ability to do so, and 123 said they were not prepared to do so. Ten entered a plea of lack of time and 17 others said they were not interested.

TABLE 55  
Item 83

WOULD SPEAK ON BEHALF OF CIVIL DEFENSE			
Responses	RS	LDR	Both
No answer	3	0	3
Yes	101	125	226
No	178	64	242
Don't know	18	11	29

TABLE 56  
Item 84

REASONS FOR REFUSAL TO SPEAK FOR CIVIL DEFENSE			
Responses	RS	LDR	Both
No answer	113	112	225
Not enough time	5	5	10
Not qualified (ability)	93	21	114
Not prepared	74	49	123
Not interested	7	10	17
Depends	1	2	3
Other responsibilities	2	0	2
Ill health	3	1	4
Don't know	2	0	2

This line of probing was continued by asking if the respondents would be willing to sponsor a Civil Defense film in groups with which they had connections; and if they would be willing to distribute Civil Defense literature in these same types of groups. Evidently sponsoring a film is not so terrifying a task as making a speech--- 385 of the respondents said they would. But it is notable that while 86 percent of the leaders said they would do so, only 71 percent of the others would undertake this task. Distribution of literature was the potential task most readily accepted. A total of 426 persons expressed readiness for such an assignment, with more than 90 percent of the leaders and 81 percent of the others in this number.

As indicated in the above table the majority of negative responses to this question was supported by lack of qualification or preparation as exemplified by the following quotes:

"I don't make speeches, I don't feel qualified to do it."

"With my educational background I'm just not prepared."

It is interesting to note that several respondents qualified their answers expressing doubt about the Civil Defense program:

"For one thing, I'm not sure that the officials are sure of what is the best advice to give to the citizen. They don't have all the information that they should have."

"I don't know how I feel about CD. I'm not convinced they're useful."

TABLE 57  
Items 91 and 93

Responses	WOULD SPONSOR FILM OR LITERATURE							
	FILM	RS	LDR	Both	LIT.	RS	LDR	Both
No answer		6	1	7		6	0	6
Yes		212	173	385		243	183	426
No		65	17	82		34	10	44
Don't know		17	9	26		17	7	24

TABLE 58  
Items 92 and 94

Responses	REASONS FOR NOT SPONSORING CIVIL DEFENSE FILM OR LITERATURE							
	FILM	RS	LDR	Both	LIT.	RS	LDR	Both
No answer		230	177	407		262	183	445
Not enough time		18	2	20		11	3	14
Not qualified (able)		6	2	8		6	0	6
Not prepared		3	1	4		1	1	2
Not interested		4	6	10		2	3	5
Depends		3	5	8		0	7	7
No groups		32	6	38		14	2	16
Film already shown on TV		2	1	3				
Illness, sick, disabled		0	0	0		3	1	4
Don't know		2	0	2		1	0	1

Reasons for not accepting such tasks center on lack of time and, more importantly, lack of group membership which would make such help feasible. Non-leaders were much more likely to offer this second reason for not being willing to do these things, as would be anticipated. But it is evident that most people are willing and able to accept responsibilities for Civil Defense work, if asked to do something they feel they can do acceptably. Though a larger number of

persons said they could not make a speech than indicated willingness to do so, it is believed that many of those who refused would change their decision if promised aid in preparation for this task.

Some examples of quotes on showing film are:

"I would not show a film, because I have seen no good or helpful CD films."

"Not that enthusiastic about CD films."

#### KNOWLEDGE OF PUBLIC PREPAREDNESS

At the heart of the entire Civil Defense effort, of course, is the plan for meeting emergencies made for each sizeable community and fitted as best it can be to the peculiarities of each particular community. Hence, familiarity with this plan is the core of preparation for leadership in Civil Defense matters. Replies to the question as to whether the informants knew of the existence of such a plan in Austin brought a total of 143 persons who said there was such a plan. Uncertainty or flat assertion that there was no such plan was voiced by 243 others, while 114 thought there might be a plan, but if so, they did not know anything about it. Here again, differences between the two panels are highly pertinent. Leaders more often were informed on the plan; less often were ignorant of its existence and less often uncertain about the matter. But of those who professed to know there was such a plan, only 18 gave a "Yes" reply when asked if they felt they knew as much about it as they should. This, of course, is a highly ambiguous question, since the meaning of the "should" will

vary with a multiplicity of factors associated with the person's feelings toward Civil Defense, his duties in emergencies assigned by his own organization or by Civil Defense, his fears of attack, his official position in the community, etc., etc. Some of this uncertainty was eliminated by asking what the informant should do in case of enemy attack, according to the community plan. The most popular reply was that evacuation according to plan should be undertaken, given by 43 persons--of whom 30 were leaders. Five other leaders and five non-leaders said they should take cover, and 12 leaders and 7 others said they should seek more information as a basis for determining what action should be taken. There were 33 who admitted they did not know what they should do in such an emergency.

TABLE 59  
Item 85

AWARENESS OF LOCAL EMERGENCY PLAN			
Responses	RS	LDR	Both
No answer	0	0	0
Yes	55	88	143
No, don't know	166	77	243
Maybe, but do not know about it	79	35	114

The following quotes are indicative of the lack of public awareness of any community plan for shelter or evacuation of people:

"It has largely fallen by the way. Unfeasible."

"I think the evacuation plan has been discontinued. Now buildings are being surveyed to be used as shelters."

"Spelunkers say caves are good places to evacuate to. . .one or two are good. . .no telling where. . .couldn't find them if we

had to in a hurry. . .I guess they are not good places."

Although the great majority of respondents answered Question 86 negatively without comment, there were several comments indicating a reliance upon CD when the particular situation arises, rather than taking any preparatory measures at present.

"No, but it is not necessary to know all about this plan, because Civil Defense knows. They would explain during an evacuation."

This prevailing ignorance of actions to be taken in accordance with an established plan was accompanied by a feeling on the part of half the respondents that Austin is as well prepared to meet a nuclear attack as the average city; though those who did not share this opinion were twice as likely to say that Austin is not as well prepared as the average as to think the city is better prepared.

Most respondents answering Question 87 stated that evacuation or food storage were part of the community Civil Defense plan; however, one college professor made the interesting observation that:

"Plans which Civil Defense have at present are of no significance in case of A-bomb attack, but they could be useful in other disaster situations such as hurricanes."

Regardless of answer, informants were asked what they thought should be done to prepare the city better for an enemy attack. True to its academic traditions, the largest concentration of replies fell into the "More public education" category. If to this is added the

TABLE 60  
Item 88

**COMPARATIVE PREPARATION OF AUSTIN FOR ATTACK**

Responses	RS	LDR	Both
Better than average	35	24	59
About average	129	121	250
Below average	78	34	112
Don't know	57	21	78
No answer	1	0	1

$\chi^2 = 16.16$        $P < .001$

number who thought "People should be made aware," we find almost half the total number, 231, putting their faith in "education." But in second place among the recommendations was "Build public shelters," favored by 87 persons, 61 of whom were not leaders. More private shelters were also recommended by 11 persons. Practice of evacuation plans was recommended by 31 persons, in equal proportions by leaders and non-leaders. Nothing more should be done in the opinion of 19.

TABLE 61  
Item 89

**NEEDED PREPARATION OF AUSTIN FOR ATTACK**

Responses	RS	LDR	Both
No answer	2	0	2
"People made aware"	20	18	38
Public education	100	93	193
Two & 6 or 7	10	20	30
X & 6 or 7	9	1	10
Evacuation plans & practice	18	13	31
Build public shelters	61	26	87
Build private shelters	6	5	11
Nothing more should be done	14	5	19
Don't know	52	17	69
More signals	8	2	10

Response on Question 89 was very good. As expected, the answers are varied and cover a wide range from general recommendations for community welfare to the very specific suggestions.

Beginning with some typical general comments, we proceed to the more specific:

"There should be a study made of the possibilities of what can be done. The local administration should consider exploring the recommendations."

We need a more realistic approach to this. . .CD will give a fear impression. . .we should stop or prevent this panic. Should teach people to use what they have right now. The shelters are not so all-important. We have over-sold the need for shelters and not emphasized the alternatives."

"Positive plan for operation is needed for "post attack survivors."

"Seek to make people realize an attack is a possibility."

"We should have more informative programs through our newspapers and other communication media."

"There should be a community shelter plan devised."

One leader commented that there was nothing more that could be done to prepare the community for possible attack:

"Nothing, under the present conditions; if there were not so much indecision on the part of the leaders, we might make progress."

A "boring in" question as to why these things had not been done, placed the blame on lack of awareness of danger and, what is perhaps the same thing, lack of interest by the public. Together these two "reasons" constitute more than half of those offered. Lack of effective communication and cooperation between responsible

officials, lack of funds from governmental sources, local and national, and lack of leadership were also cited in notable numbers. Though the numbers are small, it is pertinent to note that lack of leadership, lack of funds from political sources and lack of effective cooperation between officials were significantly more likely to be named as causes by leaders than by non-leaders.

Typical quotes follow:

TABLE 62  
Item 90

REASONS FOR LACK OF PREPARATION			
Responses	RS	LDR	Both
No answer	64	25	89
People not aware of danger, not informed	54	41	95
Lack of interest by public	61	41	102
Lack of leadership, organization - interest by officials	15	18	33
Lack of money (personal)	3	2	5
Lack of money (federal-state)	20	18	38
Lack of efficient communication and cooperation between officials and public	24	30	54
Miscellaneous	5	0	5
Maybe has been done	15	13	28
Don't know	39	12	51

"Apathy, reluctance of people to face such a horrible possibility. The feeling that it can't happen here."

"The main reason is that people haven't been informed."

"Nobody has known what to do, including Civil Defense. It seems knowledge is non-existent. But I feel that the time is now ripe."

"Lack of interest and funds. The Civil Defense Department in Government is just giving lip service to actual civil defense."

"It's possible that a study has been made. Something has been done in that signals have been erected. Public opinion has not yet demanded shelters. They don't believe it's serious enough."

"Lag in developing a program by reason of separation of the Department of Defense from CD and lack of leadership at the top outside of the city. We have too many unimaginative people."

#### PREPAREDNESS BY NON-GOVERNMENTAL INSTITUTIONS

Harking back to the series of questions on possible action by the respondents to aid in the Civil Defense promotion, other than their employer, to whom they devote most of their time. The reputation of the South as the "Bible Belt" is given support by the 196 times the church is named in response to this question. But more pertinent is the statistic of 144 who say there is no organization other than their employer to whom they give any appreciable amount of time and effort. This offers ample support for those who said they could not make speeches, sponsor films, or distribute literature because they had no groups through which to perform these assignments. Non-leaders were more likely to name their church, or to say they had no significant organization, or to name PTA. Leaders were more likely to name civic or service clubs, professional associations, or political organizations.

The organizations to which these people give their time do not participate to any great extent in Civil Defense promotion. Asked what the organization named as being most important had done with

respect to Civil Defense, 408 persons said "Nothing;" that they knew of nothing done; or did not reply to the question as not pertinent to their situation. But there were 36 organizations that had had lecturers, 16 which had sponsored training of some sort, and 10 that had distributed Civil Defense reading material. Seven had encouraged members to take training or some similar action and an even dozen had named a Civil Defense committee. None had had any practice drills. Of the 235 buildings owned by these organizations, 11 had designated areas for fallout shelter to the knowledge of these members. It is fairly evident that the organizations of the city were not active in Civil Defense.

TABLE 63  
Item 95

FAVORITE ORGANIZATION APART FROM JOB			
Responses	RS	LDR	Both
No answer	16	5	21
Church	127	69	196
Civic Club or Service Org.	30	43	73
PTA, school	17	5	22
Professional org.	4	16	20
Scouting, children's work, Red Cross	3	7	10
Politics	4	4	8
Other	1	2	3
None	96	48	144
Don't know	2	0	2
Miscellaneous	0	1	1

One elementary school principal, not wishing to be entirely negative, commented: "No Civil Defense program, but we have worked to help mental attitude and cooperation for the good of all the people. . .to develop philosophy and responsibility of brotherly love."

Employing organizations were subjected to the same scrutiny, via their employees, as was given the non-economic organizations. Asked what the employer had done in the field of Civil Defense, only 70 informants mentioned any action taken. More than half of these, 40, had named Civil Defense committees, and 18 others had had training programs of some sort or other. A dozen had distributed Civil Defense materials. Practically all of the Civil Defense committees were named by leaders. But 108 leaders also reported that their employer organization had done nothing about Civil Defense, as compared to 78 from the 100-member larger non-leader category.

TABLE 64  
Item 99

CIVIL DEFENSE ACTIVITIES OF EMPLOYER			
Responses	RS	LDR	Both
No answer	182	10	192
Show film	3	0	3
Training program (classes, films, courses)	7	11	18
Air raid drill	0	4	4
Encourage members to take training, or some sort of action	2	5	7
Distribute material on CD	4	8	12
Had lectures on CD	3	3	6
Civil Defense committee, director or plan	2	38	40
Nothing	78	109	187
Don't know	17	10	27
Have shelter	2	2	4

The following are quotes from members of the largest organization in the sample:

"It's a provincial university--they have done absolutely nothing."

"There is a fire and safety committee. Dr. Macdonald on campus has a CD area. . .at least, that's the information I have. The University has a committee, but I am not a member nor do I know anything about their work."

Employees to the number of 284 reported that the buildings in which they work had no area designated as a fallout shelter, while 46 did. Ten of these designated spaces had been especially designed or equipped to serve as fallout shelters.

TABLE 65  
Item 101

DESIGNATED SHELTER IN PLACE OF EMPLOYMENT			
Responses	RS	LDR	Both
No answer	143	5	148
Yes	21	25	46
No	125	159	284
Don't know	11	11	22

#### SOURCES OF LEADERSHIP AND ADVICE

Opinions on leadership were tapped by questions as to the type of person in whose advice (in case of enemy attack) most confidence would be felt and the type of person who could do most to assure success of the Civil Defense Program. As to the first question, there was substantial agreement that Civil Defense officials would give the best available advice; though it is notable that this opinion was expressed by 54 percent of the leaders, but only 31 percent of the random sample. Leaders also preferred University personnel in a higher proportion, while the non-leaders tended to prefer military personnel and the clergy.

About equal proportions named political figures as the best possible source of advice as to how one might best protect his family. . .one person said he would consult his attorney.

Civil Defense personnel were most often chosen as the source of reliable information as to measures most suitable for protection of one's family because, as one respondent put it, "That's his job; and By God, he'd better know." Knowledge is the basis of most of the choices, whether of Civil Defense personnel or others; often coupled with reference to training and experience. Significantly, leaders are more likely to point to specifics of training and knowledge, while non-leaders are more likely to decide on the basis of the job held or the general reputation of the person occupying the status.

A different dimension of leadership appears when the question is asked as to who could do most to assure the success of the Civil Defense program. Here city officials, including police, are most often named---156 times in the whole sample. Further, this confidence is more marked on the part of leaders, 86 of whom named city officers, than by non-leaders, 70 of whom were of this opinion. Well below local officials, but well above the next lower category, come voluntary organizations such as civic clubs, PTA and the like. Clergymen were named by 90 persons; and were notably more likely to be the choice of leaders than of others. Since multiple nominations were permitted, totals in this category run above the usual 500.

TABLE 66  
Item 104

KEY PEOPLE FOR CIVIL DEFENSE PROMOTION			
Responses	RS	LDR	Both
Mass media	20	24	44
Voluntary associations (civic clubs, PTA)	43	67	110
Businesses (LCRA, bldrs., etc)	36	16	52
Professional people (doctors, tchrs.)	51	31	82
Churches, clergy	49	41	90
Schools - Univ. personnel	37	39	76
City officials (police, council)	70	86	156
State Fed. personnel (officials, employees)	26	30	56
Civil defense	17	7	24
Neighbors, housewives	23	0	23
Don't know	54	8	62
Miscellaneous - no ans.	3	1	4

The following quotations indicate the very broad range of response to the question of whose cooperation would one seek for a community Civil Defense program.

"People responsible for city and county government. . . churches. . .and possibly the schools."

"I would ask the City Council or the City administration, or leaders in civic clubs to help me."

"Ministerial Alliance, Rotary, Kiwanis, Austin Chamber of Commerce, Superintendent of schools, bank presidents."

"PTA presidents who can appeal to protective instincts of parents. . .construction people, military people, key political people, influential lay people."

Leaders are more likely, to a pertinent degree, to advise persons seeking their advice, not to build shelters. This is in line with their greater opposition to governmental aid to shelter

building recorded above and probably reflects a generalized anti-government-subsidy attitude. But in both panels a majority of the respondents said they would advise construction of shelters if asked for advice; 68 percent of the non-leaders gave this reply, but only 57 percent of the leaders did so. Eight percent of the leaders would advise against building a shelter, but only 4 percent of the non-leaders would do this. Refusal to advise would be the policy of 23 percent of the leaders and 18 percent of the other citizens.

TABLE 67  
Item 103

ADVICE WOULD OFFER ON BUILDING SHELTER			
Responses	RS	LDR	Both
No answer	3	0	3
Build	205	115	320
Not build	13	16	29
Don't know	26	23	49
Would not advise	53	46	99

$X^2 = 2.86$        $P < .10$

Many of the people who indicated that they would advise a friend to build a fallout shelter, qualified their statements with such quotes as:

"If he could afford one."

"Wouldn't try to influence his thinking."

Of the 148 who either did not advise or did not know whether they would advise a friend to build a fallout shelter, the following quotes are typical:

"It depends on the age of the person. Yes, for young people only."

"If he had freely the means of building one and if concerned about his family, he should consult with CD people about the matter."

Whether their feeling reflects blind patriotism or informed conviction, the people of Austin definitely thought this nation was stronger than Russia at the time of this survey. A total of 286 of the sample registered this belief, while only 66 at that time believed Russia to have superior strength. "About equal" was the opinion of 65 others; and 79 said they did not know. Leaders were significantly more likely to think that the United States is the stronger power. Members of the random sample were a bit less of this opinion; and were more free to admit that they lacked the knowledge on which to base a judgement.

TABLE 68  
Item 111

RELATIVE MILITARY STRENGTH OF RUSSIA AND THE UNITED STATES			
Responses	RS	LDR	Both
No answer	1	3	4
United States	155	131	286
Russia	52	14	66
About equal	38	27	65
Don't know	54	25	79

Need for the best advice available is indicated by the fact that more of the informants felt that the United States is poorly prepared to withstand nuclear attack. Those who believe the nation is "very" or "fairly" poorly prepared total almost exactly half the total, while those who chose one of the two categories of "very well" or "fairly well" prepared add up to only 211. The remainder professed to have no opinion on the matter.

TABLE 69  
Item 110

STATE OF NATIONAL PREPAREDNESS			
Responses	RS	LDR	Both
No answer	1	0	1
Very well prepared	46	24	70
Fairly well	101	40	141
Fairly poorly	58	44	102
Very poorly	67	80	147
No opinion	27	12	39

$$X^2 = 17.98 \quad P < .001$$

If the most prevalent belief is that the nation is not as well prepared as it should be, the logical next question is who should assume responsibility for making preparations to protect the citizenry, government--local, state, or national--or persons. The reply leaves no doubt as to the belief in a partnership of government and the people, the opinion of 390 of the 500 questioned. As between the levels of government, 50 chose the national, 9 the state, and 8 the local level, while 15 said that the three levels should cooperate. Individuals had the responsibility placed on them by 21 respondents, of whom 16 were non-leaders.

TABLE 70  
Item 107

FOCUS OF RESPONSIBILITY FOR PREPARATION AGAINST FALLOUT			
Responses	RS	LDR	Both
No answer	1	1	2
Federal )	27	23	50
State ) Government	8	1	9
Local )	5	3	8
Individuals	16	5	21
Both govt. and individuals	234	156	390
Combinations of 1,2,3	4	11	15
Don't know	5	0	5

$$X^2 = 2.23 \quad P < .15$$

In justification of their replies, those who had said that government and the person must cooperate argued that while the

government has the primary responsibility, the individual must help; and that interdependence is needed, or that individuals are helpless to meet the situation by themselves. One of a combination of these reasons, was offered by no less than 398 of the sample interviewed. At the two extremes, there are found 16 persons who felt that individuals must assume responsibility for their own welfare and 44 who declared protection of the people is the responsibility of the government, solely.

The following are typical statements supporting the three general viewpoints concerning who is to assume responsibility for protecting the people. These three categories are the government, both the government and the individual, and the individual by himself.

"The only practical method of overall success is governmental operation. . .because all efforts should be centered at one head. . .controlled by one factor, the Federal Government."

"It would have to be organized at the national level to be effective and they should have information as to the necessity."

"The government should assist economically. I think if the government can help other countries, they can at least protect their people."

"It's the governments responsibility to protect the country and the individual's to protect his family."

"It is part of our constitutional responsibility to protect the people. . .but the government is limited."

"The government must lead. . .individual's must cooperate."

"The government can't herd us around like cattle, but they can help the individual do what he couldn't otherwise."

"No one likes to be dictated to. There would be a certain amount of resentment on the part of the people."

The argument that construction of fallout shelters would be a valuable deterrent to attack was rejected by 247 -- practically half -- those questioned, but was accepted by 210 others; the remaining 43 offered no opinion on this matter.

While this question could be answered with a simple "agree" or "disagree", probing revealed very interesting, and varied, opinions.

In agreement with the question:

"If they can't kill the people, they can't take the country."

"Russia has been building fallout shelters in public housing since 1950. The more people who survive, the more able we are to prevent an invasion."

"Because it renders minimum effectiveness of attack. . .for the enemy success and damage will be at a minimum."

One interesting observation was made by a college professor: "If you agree with this statement, you are assuming that you have a design for shelters you know to be effective. You assume only one possible type of attack. If you argue on this line, then a rapid program to build shelters might bring on attack before we can get them built."

In disagreement:

"War does not come on such logic; it is never rational."

"They would destroy industry and then think of the people later."

"Even if we would build shelters, the aggressor wouldn't let us survive to retaliate anyway."

"That would not affect it. The business of a nation cannot be conducted from fallout shelters."

"The aggressor's objective is achieved whether the people die or not."

One impression stands out from consideration of the statistics from these schedules: Leaders have earned their leadership positions by their wider knowledge and greater interest. They are more voluble in their replies, but they are also more incisive. On the whole, they are inclined to support measures designed to protect the population from the dangers of fallout, and of war in general. But when such measures are based on a direct financial subsidy to the home owner, their attitudes shift toward the negativistic pole.

The people in Austin, on the whole, display concern about fallout and seem to desire action to protect themselves. But this desire is not strong enough to induce positive action; nor is their knowledge sufficient to supply a rational base for such action as might be undertaken.

The conclusion seems inescapable that Austin, as of November 1961, was not as well prepared to face nuclear war as was desirable, that there was little indication of a radical change in this situation for the immediate future because both knowledge of potential danger and active leadership were lacking.

It is idle to debate the "whys" of this situation. The knowledge of its existence and the delineation of some of its dimension is a necessary prelude to any action program designed to change it.

### THE "SHELTER-MINDED MAN"

One of the valuable products foreseen as coming from this survey was the identification of a set of characteristics possessed by persons with favorable attitudes toward home shelter construction. This information would obviously be of high value in selecting the types of appeal which would produce best results in a campaign to increase interest in this type of protection against nuclear attack.

With this in mind, the 17 cards containing data on those who own home shelters were used in construction of a correlation matrix of the 15 characteristics selected as logically most likely to be associated with action and attitudes most favorable to provision of home shelters. This matrix is displayed here:

(See pages number 110 and 111 below)

Only a glance at the matrix is needed to convince one that no such well-defined type is portrayed. Only one truly significant correlation is to be found, that between having a shelter and the belief that if war comes we will be subject to nuclear attack; this one has a value of .6847. Other correlations high enough to be considered significant are found between ability to define fallout correctly and ability to name the radio sets for Conelrad; the belief that we should adopt a firm foreign policy and favoring a law requiring construction of shelters; belief that we will be subject to nuclear attack in case of war and ability to define fallout correctly; and

SELECTED CHARACTERISTICS OF SHELTER OWNERS

	Works in C.D.	Has C.D. Training	Knows Conelrad	Firm Foreign Policy	Military Preparedness	Nuclear Weapons	Defines Fallout	Some Shelter Preparedness	Has Shelter	Will Build Shelter	Has Seen Shelter	Favors Shelter Law	Favors Public Shelter	Major War Likely	Fallout Danger in Austin
Works in C.D.	2279														
Has C. D.		2279													
Training		0537	2357												
Knows Conelrad			2568	1690	2988										
Firm Foreign Policy			5550	1650	1500	0398									
Military Preparedness															
Nuclear Weapons															
Defines Fallout															
Some Shelter Preparedness															
Has Shelter															
Will Build Shelter															
Has Seen Shelter															
Favors Shelter Law															
Favors Public Shelter															
Major War Likely															
Fallout Danger in Austin															

SELECTED CHARACTERISTICS OF RESPONDENTS WHO EXPECT TO BUILD SHELTERS

	Works in C.D.	Has C.D. Training	Knows Conelrad	Firm Foreign Policy	Military Preparedness	Nuclear Weapons	Defines Fallout	Some Shelter Preparedness	Has Shelter	Will Build Shelter	Has Seen Shelter	Favors Shelter Law	Favors Public Shelter	Major War Likely	Fallout Danger in Austin
Works in C.D.	3058														
Has C. D. Training		1455 1001	2587												
Knows Conelrad		-0456 0154	1905 -0099												
Firm Foreign Policy		2182 0316	3425 0796	-1746	0913	1623									
Military Preparedness			1961 3425	1822 2293	0623	0000	0000	0000	0000						
Nuclear Weapons			0179 4451	0847 0623	3869	1825	0528	0000							
Defines Fallout			0821 -0475	1612 3424	0067	1364	1623								
Some Shelter Preparedness															
Has Shelter															
Will Build Shelter															
Has Seen Shelter															
Favors Shelter Law															
Favors Public Shelter															
Major War Likely															
Fallout Danger in Austin															

having made some preparation for occupying a shelter and ability to define fallout correctly. Having worked in the Civil Defense programs shows a fairly high correlation with the belief in a high state of military preparedness and with having made two or more definite preparations for survival in a shelter. Possession of a shelter showed a correlation of .1387, entirely meaningless according to statistical standards, though better than a negative relationship.

It should be explained, for the sake of the technicians in statistical operations, that the correlations presented here were calculated on a Control Data 1604 Computer System according to the Pearson product-moment formula.

The significance of a correlation is not always commensurate with its approximation of  $\pm 1.00$ , of course. Two possible reasons for the low values obtained present themselves; the low number of cases used and the probable absence of a true linear relationship. Either or both could have operated here since the data was presented in dichotomous form. The Phi coefficient was not used because of the small number of cases.

Perhaps more pertinent to this study are the negative correlations which unexpectedly turned up in this effort to delineate the factors describing the shelter-minded person. Having had Civil Defense training proved to be negatively correlated in this sample with no less than 5 or the 15 traits -- belief in a "firm" foreign policy, favoring the legal requirement of shelter construction, the belief

that public shelters should be built, that a major war is likely, and that Austin would be subject to nuclear attack in case war does occur. Ability to identify Conelrad radio settings was negatively correlated with advocacy of a high degree of military preparedness, with belief that a major war will occur, and with the belief that public shelters should be constructed. Advocacy of a firm stance in foreign affairs was negatively related to having made definite survival preparations of some sort and with belief in the likelihood of a major war. Advocacy of military preparations was inversely related to having visited shelters and with advocacy of required shelter construction. Ability to describe fallout correctly was found to be negatively correlated with compulsory shelter construction and the belief that a major war will come. Belief that shelters should be required by law was also negatively related to having made definite survival preparations. Having seen a shelter showed negative correlation with the belief that a major war is likely, as did, also, the belief that public shelters should be built. Having had active participation in the Civil Defense program was negatively correlated with a belief in a firm foreign policy and with the proposal that shelter construction should be required by law.

In an effort to secure more trustworthy results by use of a larger sample, a similar matrix was constructed using the data from persons who did not own a home shelter but reported that they planned to build one. Results were similar, or perhaps less encouraging to holding the hypothesis that there is such a personality type as being

hunted. No correlation coefficient as high as .50 was found; the highest, .4451 being between ability to define fallout and correct identification of Conelrad radio sets. And, again, negative correlations were numerous. Working in the Civil Defense program was found to be inversely related to four of the 15 factors used -- belief in a firm foreign policy, belief that nuclear weapons will be used if war comes, advocacy of building public shelters, expectation that Austin will be subject to nuclear attack in case of war. Advocacy of strong military preparedness was inversely related to six factors -- belief that a war will bring use of nuclear weapons, having visited a shelter, favoring compulsory home shelter construction, favoring construction of public shelters, belief that a major war is likely and that Austin will be subject to nuclear attack in that case. Belief that a major war is likely is also negatively correlated with six of the fifteen factors -- having had Civil Defense training, belief in a "firm" foreign policy, high degree of military preparedness, favoring compulsory home shelter construction, approval of building public shelters and having seen a fallout shelter.

But most of the correlations were positive and in terms of a sign test indicate to a slight and vague degree the existence of the type of personality sought. But the evidence is so unsatisfactory and so weak that no claim that the characteristics named are those of such a personality can be made. Indeed, this may be the most valuable finding of this study -- that there is no typical Civil Defense minded

personality. If this is true, it follows that for years Civil Defense has been attempting to work with persons who have not existed. Or, stated in other terms, that the lack of success that has marked the Civil Defense effort has been due to the failure to discover or develop a consciousness of the importance of this program. America, as of November, 1961, still was not sold on the need to make preparations for a nuclear war in spite of the heavy barrage of persuasive materials of varied forms and appeals exploding from the mass media of communication in the latter part of that year.

In addition to the evidence that there is no such person as the "Shelter-Minded Citizen," the most pertinent findings of this study cluster around the differences between the leaders and the led. These leaders would seem to have earned their higher statuses by their superior knowledge, based on more education and occupational status which gave greater opportunity for learning through participation in more varied aspects of the common culture. They also appear more ready to express opinions and to back them up with "reasons" of one type or another.

In non-economic phases of the Civil Defense program, leaders seem to be more approving and cooperative. But when expenditures are suggested, as in governmental construction of public shelters or subsidy of home shelters, the leaders are more disapproving than their fellow citizens to a significant degree.

The fundamental difference appears in the greater concentra-

tration of attention of the non-leaders on fallout shelters, while the leaders see more facets of the problem and offer more alternatives. This is correlated with the wider sources of information tapped by the leaders and their consequent broader perspective.

It may be suggested that the mass media approach to "selling" the shelter program appears, on the basis of this data and the common knowledge of the great amount of Civil Defense material in these media in the past few months, is more effective with the citizenship in general than with the leaders. If this is true, it follows that additional approaches, perhaps using the person-to-person technique, is indicated as needed to reach the leaders of the nation. It would also suggest that Civil Defense personnel should be selected because they occupy positions of high prestige of the "achieved" type so that they would be sought for their expert knowledge as well as because of their official position. This is an area in which much technical knowledge is as obviously required as great personal attractiveness is desired. This is to say, of course, that a very high set of requirements for such positions is indicated.

The Case of Mr. Z and Mr. B

Material based on statistical data give overall impressions and factual undergirding for them; but sometimes fail to transmit the feeling of living persons and their total reactions to a set of complex situations which together constitute a major problem. For this reason two interview schedules have been selected for analyses as wholes.

The interviews selected are not typical. They were chosen for their atypical qualities. The first informant displayed great hostility to the fallout shelter program and to Civil Defense in general. The second showed extraordinary devotion to Civil Defense in general and to the construction of fallout shelters in particular. In their opposite ways each man diverged from the average by a wide degree.

In line with the theory that the normal may be better understood when viewed through the reverse mirror of abnormality -- that we learn of health by studying disease -- it is believed that the ideas expressed by these two non-typical persons carry more than usual value to those seeking understanding of the core problems with which this study is concerned.

Mr. Z

Mr. Z is married and the father of two children under 18 years of age who live with him. He is approximately 40 years old and is quite successful in his occupation, having been advanced to one of the top jobs in his organization at least a decade before most men can hope to win such a status. Perhaps this success is based on

his high educational attainment. He owns his home in one of the better residential areas in the city. He does not have a fallout shelter.

Mr. Z was not at all antagonistic to the interviewer who called on him, and appeared quite willing to express his belief that the Civil Defense program is nothing more than nonsense.

In spite of his negativistic attitudes, he replied to the initial question in a very matter-of-fact manner. Yes, he said, he had heard of the Civil Defense program, had listened to discussions as to its part in the Hurricane Carla episode and the successful evacuation of the large number of persons from the dangerous coastal areas.

But on the next question, as to whether he was working in any way with Civil Defense, he burst out "Bunch of nonsense." Recovering his equanimity, he replied rather calmly in the negative when asked if he had attended any lectures or similar events giving information about Civil Defense activities within the recent past. The same was true when he was asked whether he knew of any Civil Defense tests run in the city.

The interview became more personal with a query as to whether he had taken part in any tests. His reply was a sparse, "We were spared that." And when the interviewer read the follow-up question as to why he had not participated, he became more emphatic. "We live outside the city limits, so we were spared this ceremony."

Heavy sarcasm marked his reply to a request to identify the

"Alert" signal with his reply "Climb under the bed." When the "Take Cover" signal was displayed, he identified it by saying "You may come out now." When asked which of the two signals had been used in Austin tests in the recent past, he professed not to remember. His knowledge of the Civil Defense program appeared in his reply that the proper response to the "Take cover" signal would be to find shelter; but he said he could not hear the signals at his home -- very probably true -- and that if he wanted information on what was happening he would tune his radio to the Conelrad sets of 640 and 1240.

With the turn of the interview to what would be done to make war less likely, his emotions returned to the surface. "We should be using the money wasted on Civil Defense to improve the International situation in regard to peace," he said when asked what the people of the nation might do; and repeated essentially the same sentiment when asked what government might do. If the United States is attacked, atomic weapons will be used, he asserted with a show of certainty. Further, if war comes, Austin has "not much chance" of escaping. His preoccupation with atomic weapons centered on blast and fallout as the lethal factors unleashed by their explosion.

Asked to describe fallout, he began quite matter-of-factly, but wound up emotionally. "Quite simply, a radio-active material which drops from the atmosphere, where it has been propelled by NASTY SCIENTISTS." Further, fallout from H-Bomb attacks will be the most lethal portion of an attack and it will cover a "large" area.

Asked what preparations for survival could be made, and had been made by him, he dismissed the queries with a curt "Pointless." The request to describe a fallout shelter again began quietly with "A concrete" but this gave way to "Pious hope of the feebleminded." In case of atomic attack, people should stay underground, in his opinion, "Until they can face reality." Perhaps he did not feel up to this himself, as he confessed his own family was not adequately prepared to remain under shelter for two weeks.

Obviously Mr. Z did not possess a fallout shelter. Asked for his reason for not having one, he was quite explicit. "It is silly to waste money and time on such an endeavor." Nor would he be interested in buying a shelter for \$500 or the materials for \$200, he said, repeating his sneer that shelters are the pious hope of the feebleminded. To the probing question of whom he would ask if he should want information about fallout shelters, he replied "I might ask you -- I really am not at all interested." The interviewer then read a question asking how the informant thought construction of fallout shelters might be encouraged. His reply was "Why not dis-courage them?" As to a tax exemption on shelters, his reply was consistent with his expressed attitudes. He opposed such an idea, he said, ". . . because if they are stupid enough to build these things, they ought to be taxed as much as possible." "Stupid" was also his reaction to the proposal that public shelters be publicly built.

The interviewer then began a new line of questioning with a request that the informant name the type of person in Austin Mr. Z thought to be the best authority on effects of fallout. His reply was a "Certainly not the owner of a shelter." Then more calmly, "I suppose an expert in the field," though he did not describe his "expert" further.

He would not make a speech on Civil Defense, if asked to do so, but commented that if he did "It might cause quite a scene." Nor would he sponsor a film because he "Doesn't believe in the whole idea" and for the same reason would be unwilling to distribute Civil Defense literature.

He said that he was aware that there is an overall plan in Austin to meet a war emergency; and that he knows as much about it as he should. Asked for details as to what he should do in case of attack, the true meaning of these replies becomes clear in his "I don't know. I am not interested in knowing." And the deeper underlying reason for his negativistic replies shines through when asked what more should be done to prepare his home town for an atomic attack. "Nothing -- there can be no preparation," he asserted.

His church, the institution to which he gives most attention apart from his job, has done nothing about Civil Defense; and neither has his employer so far as he knows, though "I really don't know."

Though it must have been quite a strain on his imagination, he did place himself in the position of the person in charge of Civil Defense in Austin long enough to reply that the type of person he would seek to give the program the best possible chance of success "Would not be a Kennedy-type person, but a man capable of handling complex situations -- like his Secretary of State." He refused to put himself in the position, even imaginatively, of seeking advice as to the cost means of protecting his family, replying simply "I wouldn't ask."

The Federal Government should assume primary responsibility for protecting people, he believes, because "Fallout will not stop at the Texas border." His final barb was reserved for the query as to whether he agreed that building fallout shelters would reduce the temptation of another power to attack us. "They all would be laughing."

He thought the United States is "fairly poorly" prepared for war, but that this country is stronger than is Russia. We are not likely to have war within the next twenty years, but if it does come the State of Texas and the City of Austin are "very likely" to suffer from fallout.

The temptation is very strong to conclude from this recorded interview, and with no other knowledge of Mr. Z, that we have here a deeply troubled man, terribly fearful of nuclear warfare and consequent peril from fallout; but even more desperately afraid of admitting his fear to himself. At two or three places in the interview, he appears to have had trouble controlling his emotions; they would break through

briefly and then be repressed again, giving the interview a rather curious undulating character.

Mr. B.

Mr. B occupies a status of leadership in one of the major professional groups in Austin. He is married and has three children living with him and his wife in the home they own. Like Mr. Z, he is about 40 years of age and has been quite successful. His fellows in his profession have selected him to represent them before the public and particularly, before state officials and legislators. He is also active as a reserve officer in the national military program. He owns a fallout shelter attached to his home.

His identification with Civil Defense appeared in his reply to the first question asked, whether he had heard or read anything about the local Civil Defense program. "I am on a technical committee for Civil Defense -- Colonel Kengla. Last week we discussed an ordinance to require some changes in shelter designs, an ordinance to prevent construction firms from building inadequate shelters." This, of course, answered affirmatively, the following questions of whether he was working with C.D. and, if so, what sort of work he was doing with that organization.

When asked if he had attended any lectures or similar events where he might have learned about the Civil Defense Program, he replied "I have given about 20 such courses myself."

Curiously, and for unknown reasons, he said he had not par-

anticipated in any Civil Defense tests in Austin within the prior three months. It is probable that he did not consider the tests of the warning sirens a real C. D. test, or that for some other reason he had not been aware of these trials. At any rate, he said he did not know whether they could be heard at his home, but did not believe they could be if windows were closed or that they would wake him at night. But he had no difficulty in identifying the signal symbols correctly and reported, correctly, that the "Alert" signal had been used in Austin tests. Further, he seems to have been aware of at least one of these signal tests. When asked what he did when he heard the signal, he said "I was drinking coffee. We commented that it was the first one we had heard in six months."

If his reaction to the signals is a bit clouded, there was no doubt expressed when he replied to a request to describe what he should do when the "Take Cover" signal is heard. "I would report to the airport to the Civil Defense Director. The others would go to the sub-basement" of the building in which his office is located. He would tune his radio to the correct Conelrad sets for further information if he needed to know what was happening after such a signal. The evidence is that he is well versed in the approved routine to be followed.

Mr. B also had little doubt as to what the people of the nation could do to make war less likely. "People should construct fallout shelters. They should learn about what fallout is to enable them to protect themselves." Further he had some very definite ideas about what the government might do to lessen the likelihood of war. "Oust uninformed

and misinformed people from Civil Defense and other governmental agencies. Educate the public about fallout and protection against it. Much misinformation is being published."

Unlike most of the Austin respondents, he listed several sorts of weapons which we might expect to be used against us if war comes -- Atomic Bombs, H-Bombs, Thermonuclear Bombs, Rockets, Guided Missiles, Germ Warfare, attacks by planes and from the sea. If nuclear bombs are used, blast, concussion, heat, fire, fallout and panic are all named as "causing the most deaths."

His definition of fallout is correct, "Debris that is touched by the fireball and irradiated and thus becomes radioactive." But when he is asked again about the most lethal aspect of nuclear attack and required to choose between fallout and blast or heat, he chooses the latter. Fallout would also be fatal, he adds, and would cover a "large" area.

This man's preoccupation with fallout shelters is revealed by his mentioning this, but nothing else, when asked what preparations could be made now for protection in case of atomic attack. Further this was the only preparation listed as having been made by him.

His description of a home fallout shelter was of the quality judged "adequate." "A place with material, sandbags, concrete, etc., shielding it to stop the effects of radiation." Further, he was more sophisticated than most in his reply to a question of how long a person should remain under such protection after a bomb had exploded

nearby. "People may be able to leave their shelters for short periods after two days. The initial intensity of the radiation is the critical factor."

After revealing that he does have a fallout shelter as a part of his home, he explains his reasons for having acquired it. "I know the dangers that we are facing. It is a form of insurance, like life insurance or health insurance. I took a team from the Strategic Bombing Survey to survey the damage at Nagasaki."

He thinks the fallout shelter construction program should be encouraged and has a definite idea as to how this can be done. "Inform people of the dangers of fallout. At the present time, if President Kennedy asked all the citizens to build home fallout shelters, C. D. would make progress rapidly." Also, as a means of encouraging such construction he was in favor of tax exemption for the construction cost, but "I would limit the exemption to an amount of \$2,500, or less, and tax all money spent above that amount. This measure would encourage fallout shelter construction." However, he was opposed to a legal requirement that shelters be built because "I don't think it can be regulated by law." The same logic was applied to the suggestion that public shelters be constructed at public cost. "You can't regulate it. I am opposed to the law, but not to public shelters."

This man refused to speculate as to why persons he knew who owned shelters had built them, but said he was very interested in

information about shelter construction. His sources for such information were listed as "Articles and literature by shelter construction firms." He would go to the local Civil Defense director as the best authority on effects of fallout, and is ready to cooperate in that gentleman's program. "I have been giving and will continue to give talks on Civil Defense and shelters."

He knew of a local plan to meet attack, but defined it, primarily in terms of shelter available. "We have hired architects to survey buildings. I think evacuation plans fail in attack." Under this plan he would report to the Civil Defense Director for specialized duties.

To prepare Austin better to meet possible enemy attack, we should "Continue the schools for Civil Defense. Get more block captains." As indicated earlier, he would be willing to distribute literature, sponsor films or make speeches on behalf of the Civil Defense program. His favorite non-employing organization, the Reserve unit of his branch of the military, was commended by him for giving classes on nuclear weapons. His own employer does not have a fallout shelter in the building it owns, but has a designated shelter area, not specifically designed to give protection against radioactive materials. But the employing organization has "distributed much literature and had several displays on Civil Defense."

If he were charged with the responsibility for giving the local Civil Defense program its best possible chances for success,

he would "Get busy professional men on my committee. They get things done." The person in whose opinion relating to protection in case of enemy attack is the "Director, United States Army Engineers School, in Virginia. He has all the necessary information." Responsibility for making preparations for nuclear attack is the responsibility of the government and of the citizens. "It must be a joint effort."

Mr. B agrees that building fallout shelters would reduce the likelihood of attack. "Russia has been building fallout shelters in public housing since 1951. The more people who survive, the more able we are to prevent an invasion."

It is his belief that we are "very poorly" prepared to withstand nuclear attack; and that Russia is the stronger military power at this time. Further, he thinks we can expect "limited wars" in the next "three to five years." When war comes, it is "Very likely" that Texas and Austin will be subjected to danger from fallout.

It seems fairly obvious that Mr. B is a man possessed of as great a fear of the consequences of the war he sees as bringing fallout to his state and city as it was suspected Mr. Z might be. But Mr. B has zeroed in his fear to the protective device of the fallout shelter. Though he says blast and concussion probably will kill more persons in case of attack than will fallout, the entire tenor of the interview belies this statement. He is, it is suspected, merely repeating something he has heard some authority assert. This he may know with his head; his heart understands why this is untrue.

This preoccupation with fallout shelters makes this man a valuable asset to Civil Defense so far as encouraging construction of this form of protection is concerned. But it may be questioned whether he has enough emotional understanding of the need for other forms of protection from other forms of peril to justify trusting him to become a public spokesman for the Civil Defense effort.

It would appear that the two gentlemen selected because they represent the two extremes of support and opposition to the fallout program are both unfitted by their emotional reactions to serve their nation or themselves as well as is needed. Perhaps we will of necessity place our hope on those somewhere between these poles.

The tables below are presented so that those who wish to obtain a complete view of the responses to the questions asked in this study may do so.

Together with the tables presented as part of the text, they give the complete data obtained, insofar as it is reflected in the item count of responses. The term "Item" in the tables is identical with the numbers found for each question, or item, on the schedule.

Item 13

TYPE OF WORK DONE WITH LOCAL CIVIL DEFENSE

Responses	RS	LDR	Both
No answer	285	167	452
Block Chairman	1	1	2
Volunteer (vague)	2	2	4
Job requires CD participation	1	13	14
Speaks, lectures, shows film	1	0	1
Pass out CD literature	3	5	8
Relative in CD	4	0	4
On CD comm. for organization	3	8	11
Permitted use of facilities	0	4	4

Item 14

PAID VS. VOLUNTARY WORK WITH LOCAL CIVIL DEFENSE

Responses	RS	LDR	Both
No answer	286	167	453
( ) Volunteer	11	19	30
( ) Paid	3	14	17

Item 16

ORGANIZATIONS PRESENTING CIVIL DEFENSE PROGRAM ATTENDED

Responses	RS	LDR	Both
No answer	265	164	429
City - County	2	2	4
Local Civil Defense	5	4	9
State - Federal	2	7	9
Civic Clubs	5	9	14
School - PTA	5	9	14
Churches	4	3	7
Military	4	2	6
Business Group	5	0	5
Don't Remember	2	0	2
Red Cross	1	0	1

Item 20

REASONS FOR NOT PARTICIPATING IN LOCAL TESTS

Responses	RS	LDR	Both
No answer	215	127	342
Sick	1	0	1
Lack of interest	1	3	4
Was at work (no alert plan)	8	3	11
Knew it was just a practice	18	46	64
Didn't hear sirens	7	9	16
Too busy	3	4	7
Didn't know what to do-wasn't asked	13	5	18
Went about normal activities-just listened	27	3	30
Don't remember	7	0	7

Item 21

IDENTIFICATION OF "ALERT" WARNING SIGNAL

Responses	RS	LDR	Both
No answer	2	3	5
Alert	106	100	206
Take Cover	35	12	47
All Clear	4	5	9
Attack	6	1	7
Practice	6	8	14
Don't know	137	69	206
Miscellaneous	4	2	6

Item 22

IDENTIFICATION OF "TAKE COVER" WARNING SIGNAL

Responses	RS	LDR	Both
No answer	6	5	11
Alert	19	7	26
Take cover	68	62	130
All clear	10	19	29
Other	10	4	14
Practice	5	2	7
Don't know	179	95	274
Air raid	3	6	9

Item 24

ACTION TAKEN ON HEARING WARNING SIGNALS			
Responses	RS	LDR	Both
No answer	72	52	124
Went to shelter	0	3	3
Reported to military base	0	1	1
Reported to job or volunteer organization	2	0	2
Didn't know - got more information	14	9	23
Drill at school or work	2	7	9
Tuned to Conelrad, radio	29	13	42
Took some precautions, etc.	14	3	17
Went about normal activities	163	106	269
Don't remember	2	3	5
Miscellaneous	2	3	5

Item 25

PROPER ACTION AT "TAKE COVER" SIGNAL			
Responses	RS	LDR	Both
No answer	7	2	9
Get more information	6	9	15
Take shelter	229	171	400
Evacuate, Flee	5	4	9
Seek family	5	4	9
Take some precautions	8	0	8
Pray	1	0	1
Don't know	35	9	44
Do nothing	4	0	4
Wouldn't believe it	0	1	1

Item 38

SPATIAL EXTENT OF BOMB DANGER			
Responses	RS	LDR	Both
No answer	7	2	9
Small area	64	35	99
Large Area	202	149	351
Entire earth	2	0	2
Don't know	25	14	39

Item 43

TIME SHOULD REMAIN IN SHELTER AFTER ATTACK			
Response	RS	LDR	Both
No answer	3	0	3
1 - 3 days	21	19	40
4 - 7 days	19	14	33
8 - 10 days	22	9	31
11 - 14 days	124	97	221
2 - 3 weeks	37	36	73
4 weeks - month	5	0	5
Over month	8	2	10
Depends	12	12	24
Don't know	49	11	60

Item 44

ABILITY TO SURVIVE FOR TWO WEEKS WITH NO HELP

Responses	RS	LDR	Both
Yes	50	34	84
No	244	158	402
Don't know	6	8	14

Item 50

REASONS FOR PLANNING TO BUILD FALLOUT SHELTER

Responses	RS	LDR	Both
No answer	273	185	458
Protection of family	23	14	37
Protection of family and others	1	1	2
War will come here when it starts	1	0	1
Could use for other purposes	2	0	2

Item 56

PREPARATION OF SHELTERED SPACE IN RENTED QUARTERS

Response	RS	LDR	Both
No answer	277	183	460
Specially prepared	0	0	0
Convenient location	21	17	38
Don't know	2	0	2

Item 57

DESIGNATION OF SHELTERED AREA

Response	RS	LDR	Both
Yes, official area	20	16	36
No, not an official area	2	0	2
Don't know	1	0	1
No answer	277	184	461

Item 58

DESCRIPTION OF SHELTER SPACE PLANNED TO USE

Response	RS	LDR	Both
No answer	281	185	466
Cellar - all concrete	2	0	2
Cellar - roof wood	1	1	2
Basement with no windows (one room)	2	2	4
Basement with windows (one room)	2	2	4
Specially prepared and stocked area	0	1	1
Basement (large area) no windows	0	0	0
Basement (large area) with windows	1	2	3
Room of house, convenient location (hallway, etc.)	11	7	18

Item 59  
 RECOGNIZED SOURCES OF FALLOUT SHELTER INFORMATION

Response	RS	LDR	Both
No answer	7	8	15
Read literature on Civil Defense (pamphlets, already distributed)	16	12	28
Contact local Civil Defense	186	156	342
Contact at club, civic organization, church	4	1	5
Read article in periodicals	5	6	11
Contact someone in military	9	1	10
Look at sample at Barton Springs	1	0	1
Contact neighbor, relative	4	2	6
Contact builder, contractor	25	3	28
Don't know	29	6	35
City official (firemen, police, etc.)	6	1	7
Miscellaneous	8	4	12

Item 61  
 TIME SINCE SHELTER SEEN

Response	RS	LDR	Both
1 month	42	48	90
2 months	18	19	37
3 months	17	10	27
4 months	9	14	23
5 months	3	1	4
6 months	5	9	14
7 months	1	0	1
8 months	2	0	0
9 months	0	1	1
1 year	11	12	23
2 years	4	1	5
Over 2 years	3	0	3
No answer	185	85	270

Item 62  
 DEMONSTRATION VS. OTHER PURPOSES OF SHELTER SEEN

Response	RS	LDR	Both
No answer	186	85	271
Yes, demonstration	61	73	134
Sales	26	26	52
Residence (neighbors, relatives)	21	15	36
Located in business	0	1	1
Located in military	1	0	1
For training purposes	1	0	1
TV	2	0	2
Printed material (magazines, papers, etc.)	1	0	1

Item 65  
 BELIEF OF OTHER'S REACTION TO SHELTERS SEEN

Response	RS	LDR	Both
No answer	187	86	273
Favorable	55	34	89
Unfavorable	9	17	26
No other people present	5	9	14
Both	1	6	7
Don't know	43	48	91

Item 67

MEANS USED TO SECURE ADDITIONAL SHELTER INFORMATION

Response	RS	LDR	Both
No answer	276	166	442
Read magazine, newspapers	6	7	13
Read CD literature	5	7	12
Called CD	4	5	9
Contacted friend	4	3	7
Contacted city personnel	1	0	1
Contacted military	1	0	1
Contacted others	1	3	4
Miscellaneous	2	9	11

Item 71

KNOWS SOMEONE WITH HOME SHELTER

Response	RS	LDR	Both
Yes	58	50	108
No, don't know	241	149	390
No answer	1	1	2

Item 72

REASONS ASCRIBED TO OTHERS FOR BUILDING SHELTER

Response	RS	LDR	Both
No answer	241	152	393
Protect family	38	36	74
Safety - help others	0	1	1
If another war comes we will be attacked	4	4	8
Everyone else is doing it or planning it	2	2	4
Serve other purpose also i.e., shelter originally built for another purpose (tornadoes, etc.)	11	2	13
Don't know	4	3	7

Item 74

SOURCE OF RECENT INFORMATION ON SHELTERS

Response	RS	LDR	Both
No answer	117	43	160
TV - Radio	48	16	64
Magazine - newspapers	96	84	180
1 and 2	14	18	32
Salesman called	4	4	8
Discussions (friend told me, neighbor etc.)	9	5	14
Civil Defense literature	8	17	25
3 and 6	1	10	11
3 and 4	1	1	2
Don't remember	2	2	4

ITEM 79

CIVIL DEFENSE COOPERATION REQUESTED			
Responses	RS	LDR	Both
No answer	1	0	1
Yes	20	44	64
No	278	155	433
Don't know	1	1	2

ITEM 80

NATURE OF COOPERATION REQUESTED BY CIVIL DEFENSE			
Responses	RS	LDR	Both
No answer	279	154	433
Block chairman	4	3	7
Volunteer (vague)	4	5	9
Job requires CD participation (police, etc)	1	2	3
Speak, lecture, show film, etc.	0	7	7
Pass out CD literature	8	5	13
Be a trainer, teach course	2	18	20
Attend CD class	2	1	3
Don't recall	0	5	5

ITEM 81

COOPERATION WITH CIVIL DEFENSE			
Responses	RS	LDR	Both
No answer	279	154	433
Cooperated	12	43	55
Did not	9	3	12
Don't recall	0	0	0

ITEM 82

REASONS FOR NON-COOPERATION WITH CIVIL DEFENSE			
Responses	RS	LDR	Both
No answer	290	197	487
Not enough time	7	2	9
Not qualified (can't make a speech)	0	0	0
Not prepared (don't know enough about it)	0	1	1
Not interested	1	0	1
Depend on particular assignment)	0	0	0
Other responsibilities	1	0	1
Don't know	1	0	1

ITEM 86

HAS ADEQUATE KNOWLEDGE OF LOCAL PLAN			
Responses	RS	LDR	Both
No answer	183	89	272
Yes	9	9	18
No	107	99	206
Don't know	1	3	4

ITEM 87

ACTION TO BE TAKEN IN CASE OF ATTACK

<u>Responses</u>	<u>RS</u>	<u>LDR</u>	<u>Both</u>
No answer	250	132	382
Get more information	7	12	19
Take shelter	9	5	14
Evacuate plans	13	40	43
Seek family	0	1	1
Store supplies	0	1	1
Five and three	3	1	4
One and two	0	1	1
Report for duty	0	2	2
Don't know	18	15	33

ITEM 96

CIVIL DEFENSE ACTIVITIES OF FAVORITE ORGANIZATION

<u>Responses</u>	<u>RS</u>	<u>LDR</u>	<u>Both</u>
No answer	124	56	180
Show film	6	2	8
Training program (films, lectures, courses)	6	10	16
Air raid drill	0	0	0
Encourage members to take training, or some sort of action	5	2	7
Distribute material on Civil Defense	3	7	10
Had lectures on Civil Defense	9	27	36
Civil Defense Com., director, or plan	8	4	12
Nothing	109	83	192
Don't know	29	7	36
More than one	1	2	3

ITEM 97

FAVORITE ORGANIZATION OWNERSHIP OF QUARTERS

<u>Responses</u>	<u>RS</u>	<u>LDR</u>	<u>Both</u>
No answer	114	56	170
Yes	142	93	235
No	38	50	88
Don't know	6	1	7

ITEM 98

DESIGNATED SHELTER IN ORGANIZATION BUILDING

<u>Responses</u>	<u>RS</u>	<u>LDR</u>	<u>Both</u>
No answer	154	102	256
Yes	6	5	11
No	111	88	199
Don't know	29	5	34

ITEM 102

SPECIALLY DESIGNED SHELTER IN PLACE OF EMPLOYMENT

<u>Responses</u>	<u>RS</u>	<u>LDR</u>	<u>Both</u>
No answer	280	175	455
Yes	8	2	10
No	12	22	34
Don't know	0	1	1

ITEM 105

MOST TRUSTED AUTHORITY ON FAMILY PROTECTION

<u>Responses</u>	<u>RS</u>	<u>LDR</u>	<u>Both</u>
No answer	6	1	7
Doctor, medical profession	18	18	36
Civil Defense personnel	95	108	203
City & state officials, Dept. of Public Safety	20	11	31
Scientist, Univ. trained person	19	27	46
Military personnel	23	11	34
Builder, contractor	6	1	7
Two and some other person	11	3	14
Clergy	20	1	21
Don't know	61	13	74
Miscellaneous (if necessary)	20	6	26
Lawyer	1	0	1

ITEM 106

REASONS FOR CHOOSING MOST TRUSTED AUTHORITY ON FAMILY PROTECTION

<u>Responses</u>	<u>RS</u>	<u>LDR</u>	<u>Both</u>
No answer	65	15	80
That's his job - he should know	124	70	194
That's his job, specific reference to what he should know (biologist, because of familiarity with bacteriology, etc.)	25	34	59
Only one I know of	1	1	2
Have more confidence in him-people trust him	27	6	33
Would know more than anyone else, more experience	42	70	112
Don't know	16	4	20

ITEM 108

REASONS FOR ASSIGNING RESPONSIBILITY

Responses	RS	LDR	Both
No answer	14	3	17
Local govt. knows community best	7	3	10
Because govt. has the responsibility and individual should help	66	72	138
Because individuals are helpless by themselves	42	20	62
Because interdependence needed, responsibility of govt., individuals	115	64	179
Because responsibility of govt. solely	23	21	44
Because individuals can't afford	0	2	2
Because individuals just can't do it, inadequate, apathetic	11	10	21
Individuals should be responsible for own welfare	11	5	16
Don't know	11	0	11

ITEM 109

SHELTERS WOULD INHIBIT ATTACK

Responses	RS	LDR	Both
No answer	1	0	1
Agree	122	88	210
Disagree	148	99	247
No opinion	29	13	42

ITEMS 114 and 115

EXPECTATION OF LOCAL NUCLEAR ATTACK IN WAR

Responses	Texas			Austin		
	RS	LDR	Both	RS	LDR	Both
No answer	5	0	5	5	0	5
Vary likely	182	137	319	181	125	306
Probably likely	53	38	91	54	45	99
About 50-50	21	12	33	20	10	30
Probably unlikely	3	6	9	8	6	14
Very unlikely	4	3	7	8	6	14
No opinion	32	4	36	24	8	32
Never	0	0	0	0	0	0